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BULLETIN No. 42

INTERNATIONAL ICE OBSERVATION AND ICE PATROL SERVICE IN THE NORTH ATLANTIC OCEAN - [SEASON of 1956]

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INTERNATIONAL ICE OBSERVATION AND ICE PATROL SERVICE

IN THE

NORTH ATLANTIC OCEAN

A. J. BUSH
J. E. MURRAY
FLOYD M. SOULE

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Season of 1956

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A. C. Richmond

A. C. Richmond,
Vice Admiral, U. S. Coast Guard,
Commandant.

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D: h (10); c e (1)
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ABSTRACT

The authority for, mission, forces assigned and method of operation of the International Ice Patrol during the 1956 ice season are described.

Aerial ice observation and communications statistics are presented.

All ice reports made to the International Ice Patrol in 1956 are tabulated. A general month-by-month description of ice conditions in the Newfoundland area is given. Only 80 bergs drifted south of latitude 48°N during the year, a low figure in comparison with the 1900-1956 average, 391 bergs. The most southerly berg of the season was reported 28 May in 44°58'N., 49°22'W. The duration and maximum extension of the pack ice to the south and east of the Newfoundland coast were subnormal.

The three dynamic topographic charts resulting from the season's current surveys have been discussed.

A more detailed analysis of the Labrador Current has been made based on the velocity profiles at 18 selected sections occupied during the 1956 season and post season cruises.

Mean curves representing the T–S relationship for Labrador Current water, mixed water and Atlantic Current water have been derived for the period 1948–56 and compared with similar curves for the period 1934–41 and the conditions found during 1956 have been compared with the means.

Tentative normal seasonal variation relationships have been presented for the volume transport, mean temperature and minimum observed temperature of the Labrador Current at sections F and G, located near the northeastern shoulder of the Grand Banks.

The temperature and salinity of the intermediate water of the Labrador Sea have been examined for each of the 16 occupations of the South Wolf Island-Cape Farewell section since 1934. While year to year variations have been large the average temperature for the period 1948–56 was the same as for the period 1934–41 but the salinity has been lower in the later period.

Examination of the deep water of the Labrador Sea for the same periods showed a slight warming and freshening at 2000 meters, an isothermal freshening at 2500 meters and a freshening accompanied by a cooling at 3000 meters. The combined effects result in about the same decrease in density at each level.

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FOREWORD

This bulletin is No. 42 in the series of annual reports on the International Ice Observation and Ice Patrol Service.

Authors of the section of this bulletin dealing with oceanography were Oceanographer Floyd M. Soule and LT. J. E. Murray. The remainder was written by LCDR A. J. Bush, USCG.

INTERNATIONAL ICE PATROL 1956

The International Ice Patrol service for 1956 was carried out by the U. S. Coast Guard in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1948, and the U. S. Code, Title 46, Sections 738–738d. The mission of protecting shipping from the dangers of ice drifting in the Grand Banks area was accomplished by the collection of ice information from all available sources and by means of twice daily radio broadcasts disseminating to shipping the description of the current ice situation. The scientific program dealing with the factors influencing the distribution and drift of ice in the North Atlantic Ocean was continued.

The Commander, International Ice Patrol, Captain K. S. Davis, USCG, had the following facilities available to him during the ice season: a staff of three officers and 13 enlisted men, radio and landline communication facilities and office space at Argentia, Newfoundland, three reconnaissance aircraft, one patrol vessel, *USCGC Acushnet* and an oceanographic survey vessel, *USCGC Evergreen*. The efficiency of the aerial ice reconnaissance and the distribution of ice made it unnecessary to utilize a surface patrol vessel for the sixth consecutive year.

On 5 March Commander, International Ice Patrol and staff arrived at Argentia. Pre-season aerial ice reconnaissance indicated the Grand Banks to be free of ice at that time. The first of the 76 ice observation flights made during the season was flown on 12 March. Radio broadcast of the twice daily ice bulletins to shipping was commenced at 0048 GMT, 14 March. These bulletins were also sent via landline to the U. S. Navy Hydrographic Office, the Canadian Department of Transport and the R.C.N. Radio Station at Albro Lake, N.S. for further dissemination to shipping.

The principal sources of ice information during the ice season were the ice observation flights made by International Ice Patrol aircraft, reports made by commercial and military vessels and aircraft, ice reconnaissance flights by the Canadian Department of Transport in the Gulf of St. Lawrence and by the U. S. Navy in the Labrador Sea and Baffin Bay, and, on request, occasional reports by harbormasters, harbor pilots, signal stations and shipping agents.

USCGC Evergreen made three oceanographic surveys in the critical sectors of the Grand Banks area during the ice season. By means of the current maps resulting from these surveys, semimonthly isotherm charts prepared from sea temperatures reported by shipping and wind data supplied by the U. S. Fleet Weather Central at Argentia, estimates of the set, drift and melting rate of bergs and field ice were made. These estimates were useful in planning ice observation flights, particularly after extended periods during which such flights were impracticable because of poor visibility conditions. The current charts and isotherm charts for the season are shown in figures 12 to 14 and 1 to 7, respectively.

Only 80 bergs drifted south of latitude 48°N in the Grand Banks area during all of 1956, a low figure in comparison with the 1900–1956 average, 391 bergs. None of these bergs approached very close to the United States-European North Atlantic Track Agreement tracks B and C. The Canadian-European tracks E and F were free of field ice during the periods they were regularly scheduled to be in effect, but were encumbered by a few bergs throughout the ice season. The field ice blocking Track G was practically all gone by 16 June, but bergs were to be found throughout the season in the Strait of Belle Isle and eastward on this track to the 1,000 fathom curve. The steamer track from Cabot Strait to the St. Lawrence River ports was essentially free of ice by 4 April.

The International Ice Patrol office at Argentia was closed and broadcast of ice bulletins terminated on 13 July. By that time there was no ice far enough south in the Labrador Current to survive the trip to the vicinity of the Tail of the Banks and endanger the major steamer tracks traversing that area. Periodic post-season ice reconnaissance flights were made by the United States Coast Guard Air Detachment at Argentia to guard against any stray berg reaching those tracks without warning to shipping.

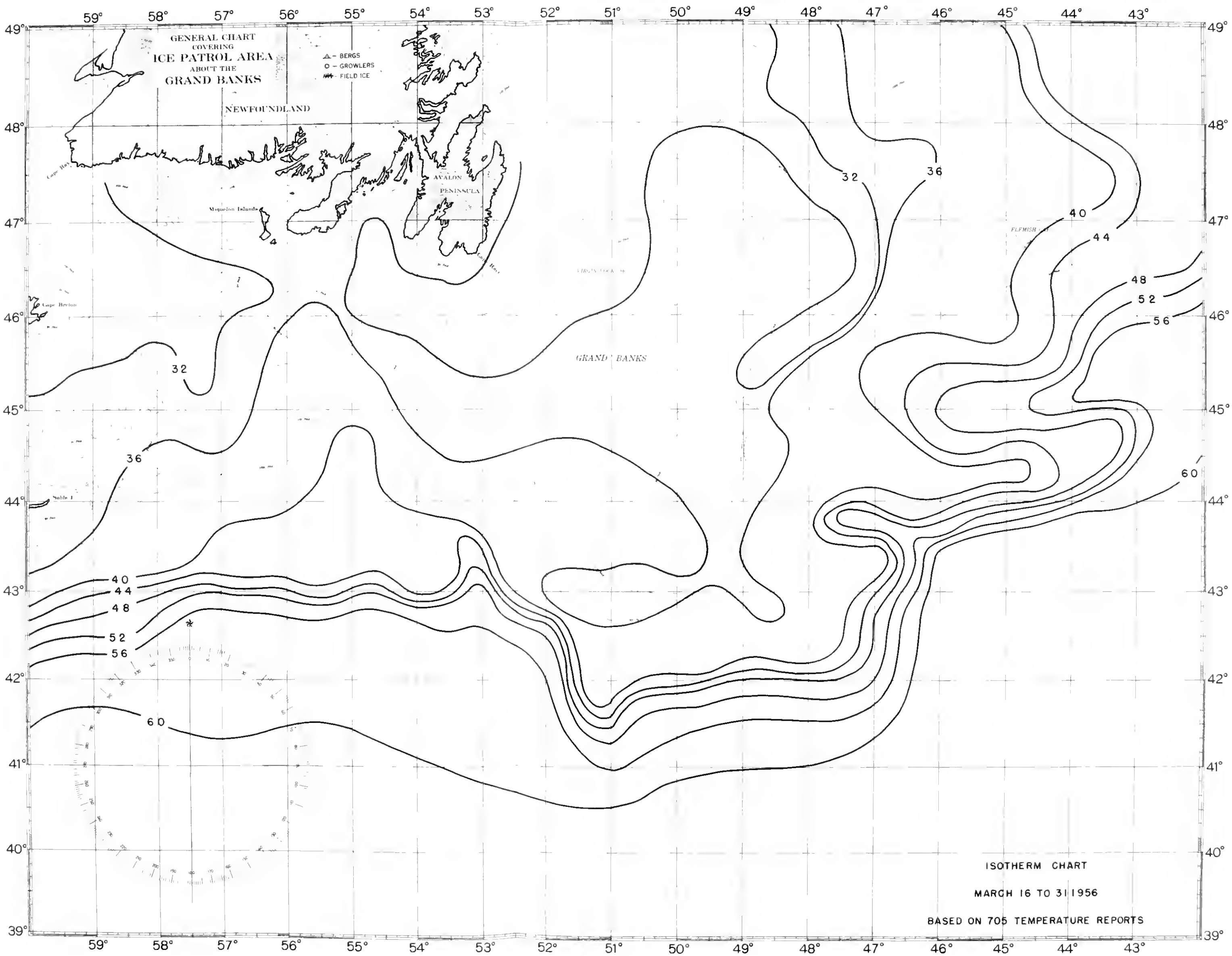

FIGURE 1.—Surface isotherms for the period 16–31 March 1956.

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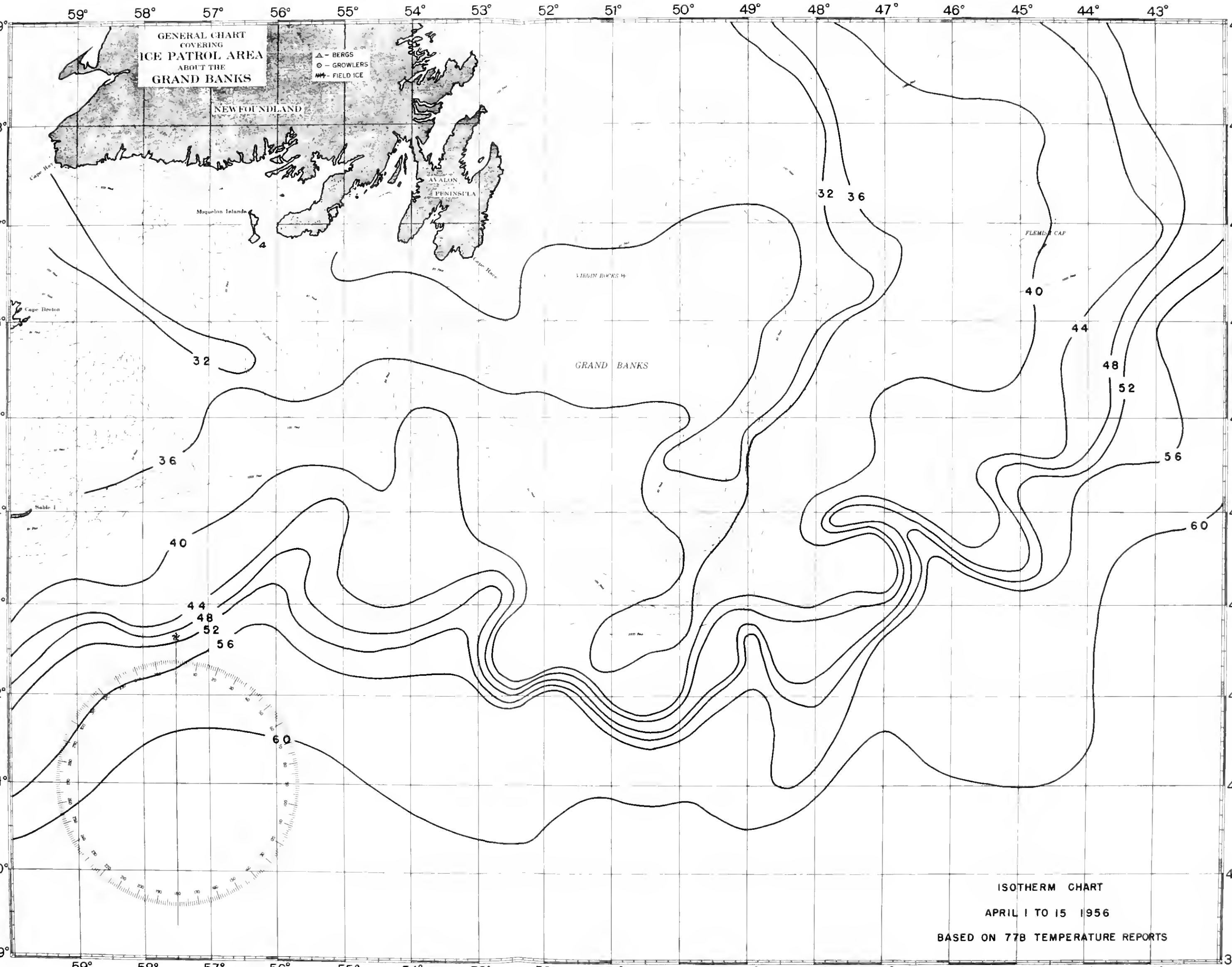

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FIGURE 2.—Surface isotherms for the period 1-15 April 1956.

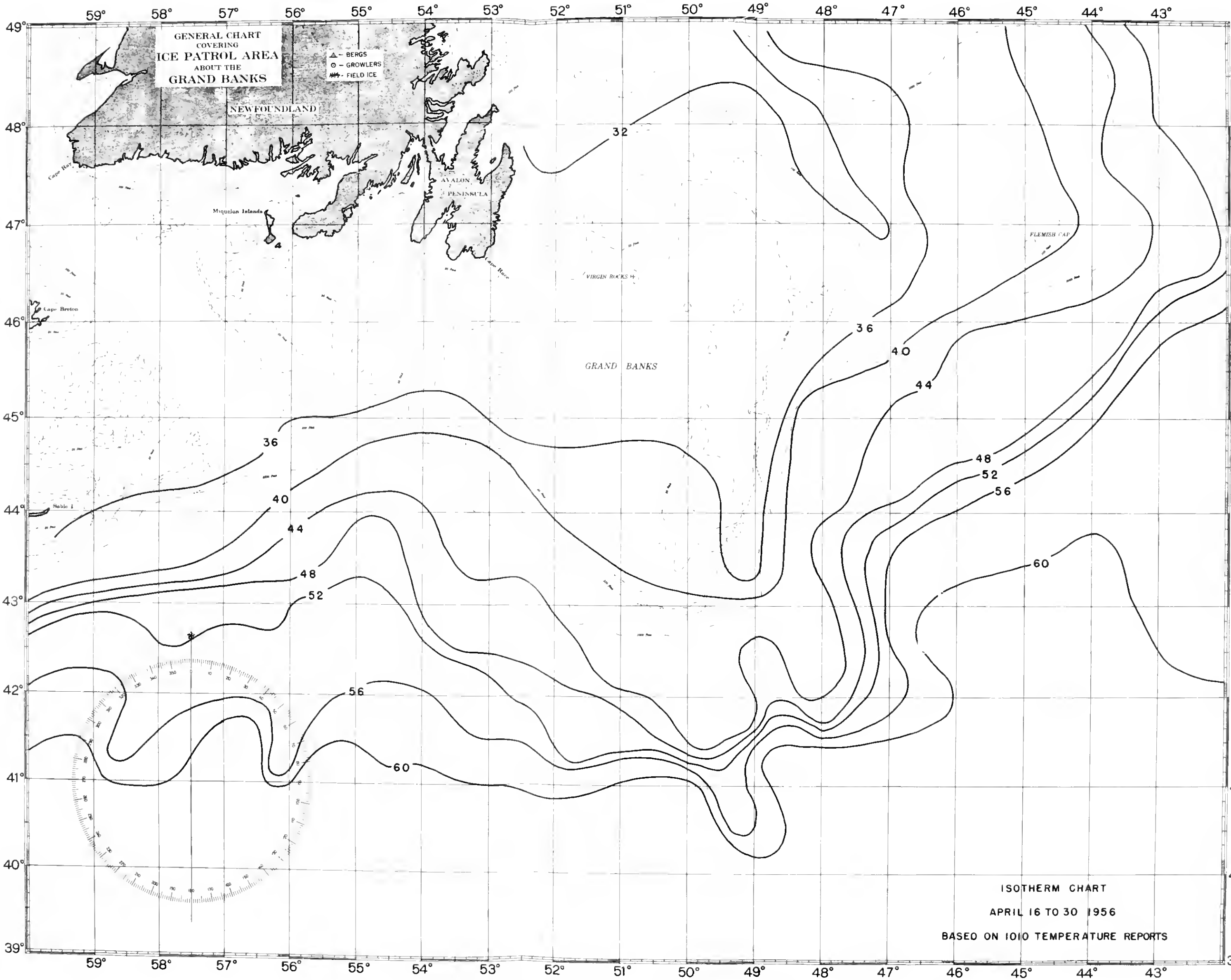

FIGURE 3.—Surface isotherms for the period 16–30 April 1956.

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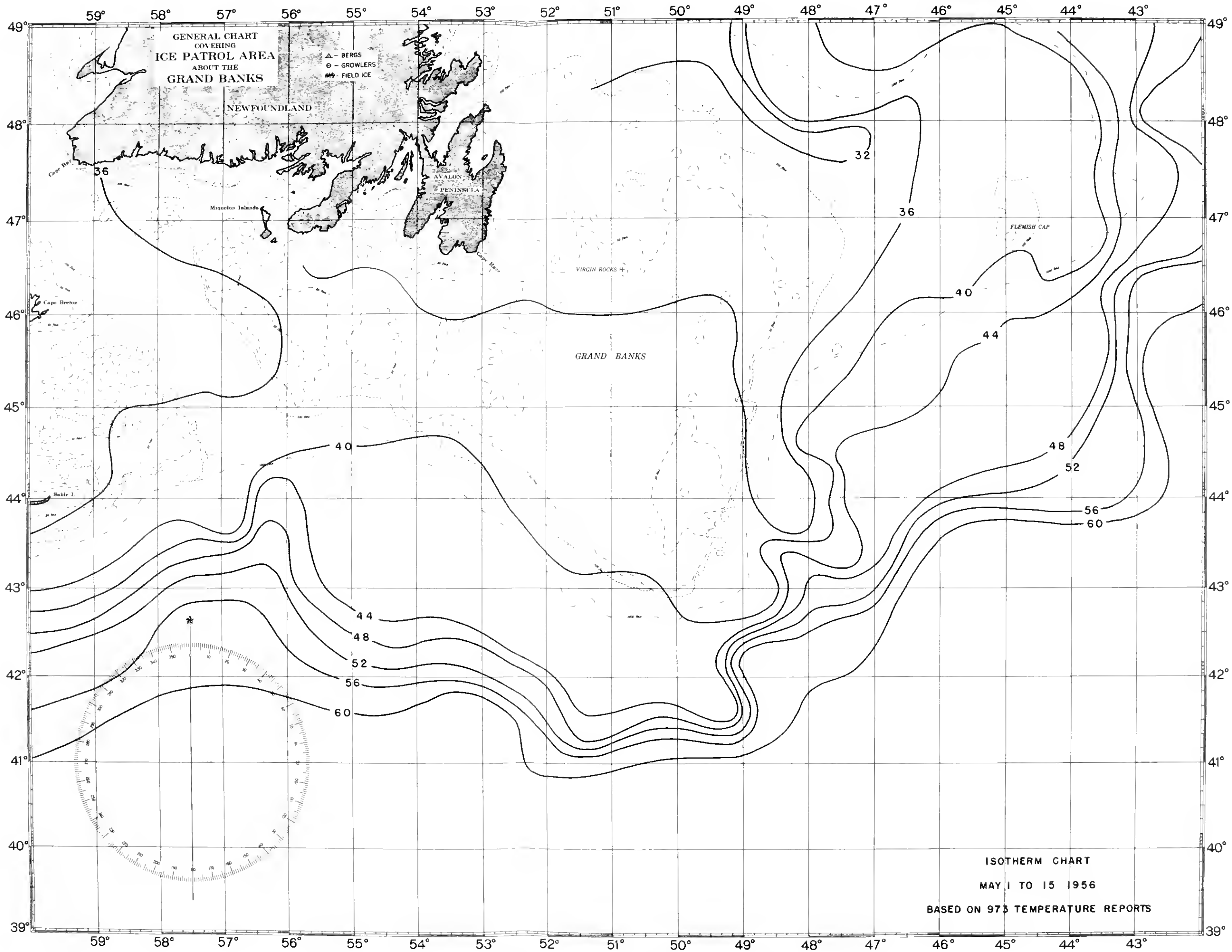

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FIGURE 4.—Surface isotherms for the period 1-15 May 1956.

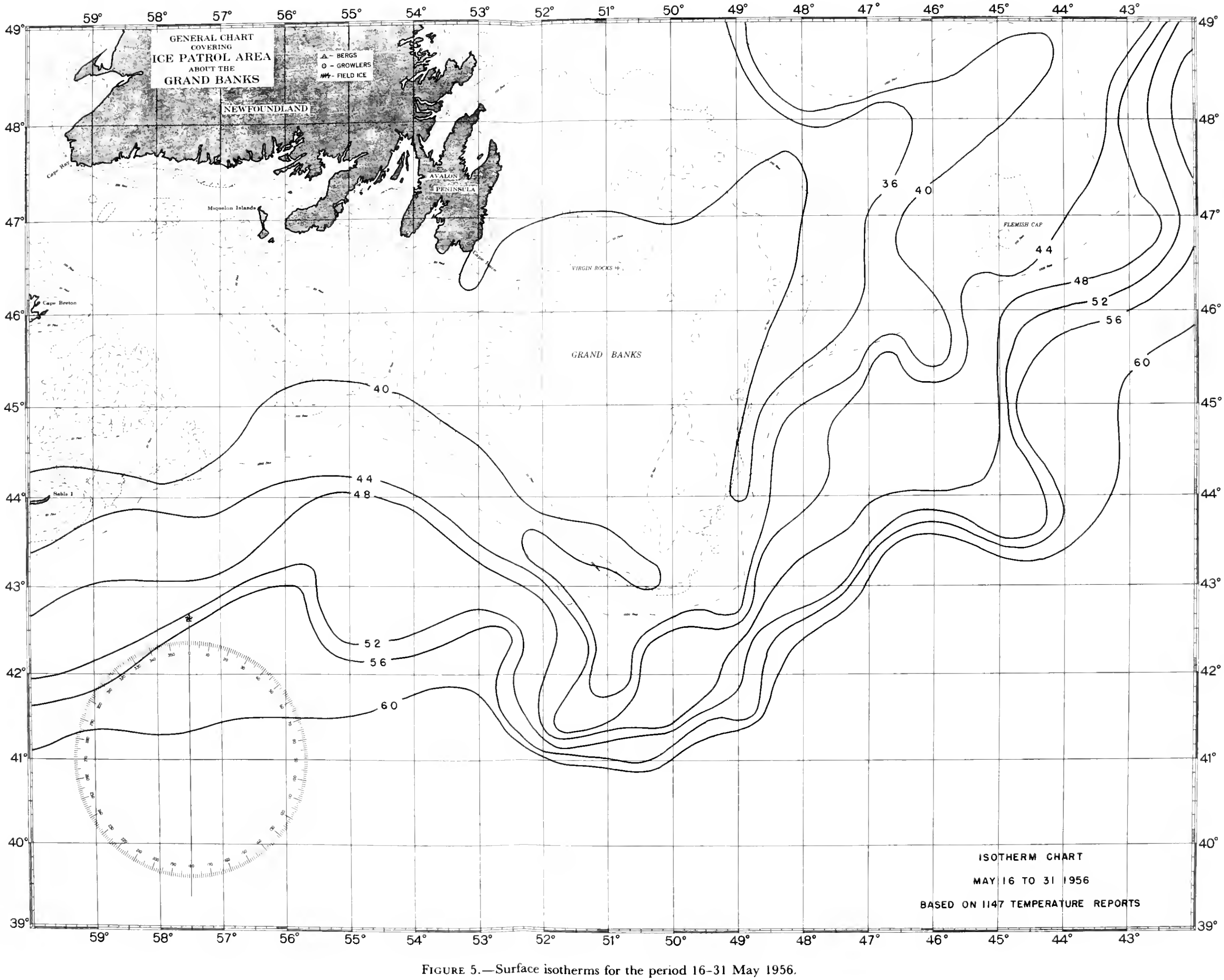

FIGURE 5.—Surface isotherms for the period 16-31 May 1956.

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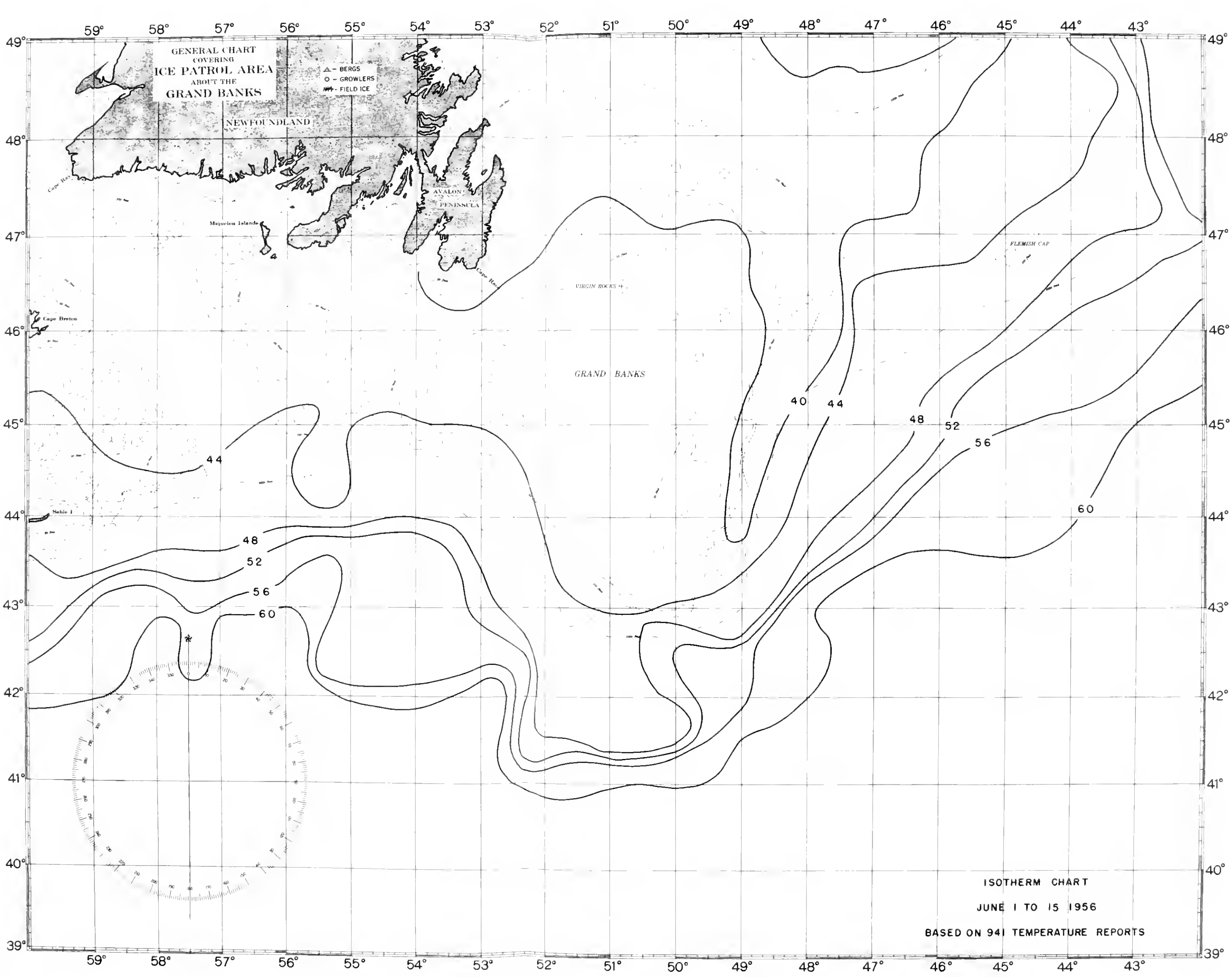

FIGURE 6.—Surface isotherms for the period 1-15 June 1956.

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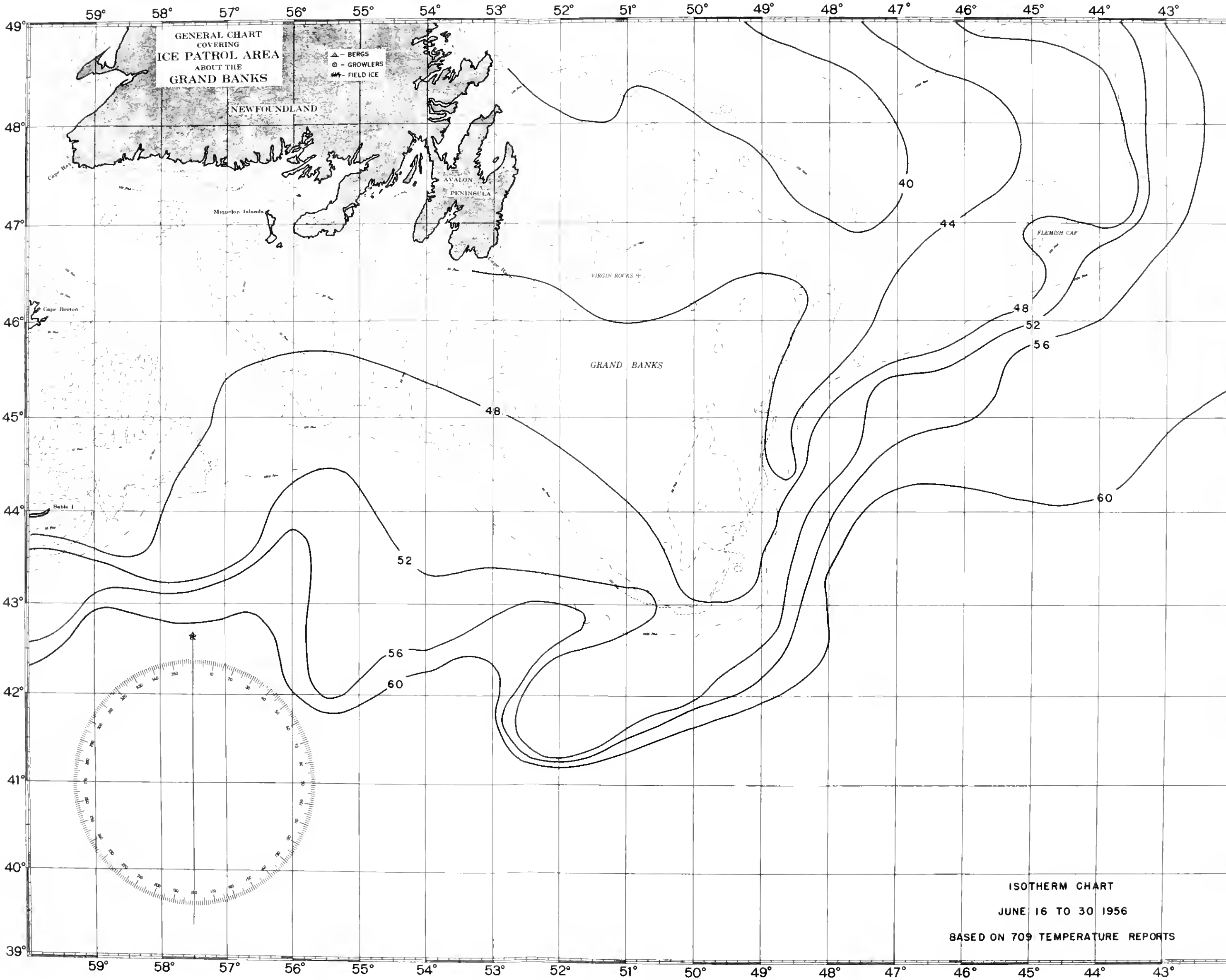

FIGURE 7.—Surface isotherms for the period 16–30 June 1956.

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AERIAL ICE OBSERVATION

Seventy-six ice observation flights were made in three PB1G (B-17) type aircraft by the United States Coast Guard Air Detachment at Argentia during the ice season. These flights averaged 918 miles in length and 6.4 hours long. The longest flight was 1275 miles in length.

The primary objective of the aerial ice observation was to guard the southeastern, southern and southwestern limits of the ice encumbered area in the vicinity of the Grand Banks so that shipping might be advised of the extent of that dangerous area. In addition, the aerial ice observation had the purpose of maintaining, insofar as visibility conditions and aircraft availability permitted, a detailed, up-to-date picture of the ice situation in the Grand Banks region for the benefit of mariners traversing the ice area. Ice reports from shipping were of invaluable assistance in attaining these objectives.

The ice observation flight plans were usually made up of a system of parallel lines spaced at 20 or 25 mile intervals depending on conditions of visibility. Loran was the primary method of air navigation. A trained aerial ice observer was assigned to each ice observation flight. Radar aided the observer in locating ice, especially where visibility conditions were not good.

As in past years, the prevalence of fog in the Grand Banks area hampered the effectiveness and the systematic scheduling of ice observation flights. Weather reports from shipping and weather forecasts made by the United States Fleet Weather Central at Argentia were very helpful in avoiding the scheduling of flights during periods of low visibility in the search areas.

Flight statistics for the season are presented in the following table:

TABLE I

Aerial Ice Observation Statistics for the 1956 Ice Season

Month	Number of flights	Number of days on which flights made	Number of days good observing weather[1]	Average visual effectiveness[2]	Maximum number days between flights	Miles flown	Hours flown
				Percent			
March (5-31)	17	14	11	58.4	4	13,861	99.5
April	20	20	10	43.5	4	18,029	127.8
May	20	19	15	61.2	5	18,659	128.5
June	12	11	7	68.3	8	12,155	80.8
July (1-13)	7	6	2	39.1	3	6,984	47.5
Total for 1956	76	70	45	54.1	------------	69,688	484.1

[1] Days on which possible to search visually at least 50 percent of scouting area with 25 mile spacing between legs of flight plan.

[2] Ratio (x100) of area actually searched visually to area planned to be searched.

COMMUNICATIONS

From 14 March to 13 July ice bulletins were broadcast daily to shipping by United States Coast Guard Radio Argentia (NIK) at 0048 and 1248 GMT on 155, 5320 and 8502 kcs. A general call to all ships on 500 kcs. preceded each broadcast with instructions to shift to the above operating frequencies. A one minute period of test signals transmitted on the operating frequencies facilitated receiver tuning. Each bulletin was transmitted twice, once at 15 words per minute and a second time at 25 words per minute. The ice bulletins were also sent via the teletype net to the United States Navy Hydrographic Office, Washington, D. C., the Canadian Department of Transport, Halifax, N. S. and the Royal Canadian Navy Radio Station at Albro Lake, N. S.

Each bulletin concluded with a request that all shipping in the ice patrol area report to NIK all ice sighted, and weather conditions and sea temperatures every four hours. The effectiveness and efficiency of the International Ice Patrol was enhanced considerably by the excellent response by shipping to this request. Merchant ships worked NIK on 425, 454, 468 or 480 kcs. or their assigned frequency in the 8 mc. band. NIK worked on 444 or 8650 kcs.

During the 1956 season, ice patrol communications involved the handling of 9,254 radio mesages and 8,671 landline messages. Statistics concerning the reports received from shipping are as follows:

Number of ice reports received from vessels	460
Number of vessels furnishing ice reports	205
Number of sea surface temperatures reported	7,028
Number of vessels furnishing sea surface temperatures	420
Number of vessels requesting special information	72
Number of weather reports relayed to Observer, Washington	729
Total number of vessels worked	485

The percentage distribution of reporting vessels by nationality was as follows:

Nationality	*Pereent of total*
Great Britain	29.7
U. S. of A.	16.1
Germany	10.4
Norway	7.3
Liberia	6.3
Sweden	5.7
Netherlands	4.3
Italy	3.0
Panama	2.8
France	2.0
Canada	1.8
Others (18 nations)	10.6
Total	100.0

ICE CONDITIONS—1956

JANUARY—FEBRUARY

No ice was reported to the International Ice Patrol during January or February except a patch of field ice reported 21 February west of Funk Island, Newfoundland.

MARCH

The Grand Banks area remained clear of ice in the first half of March. Approximately 20 bergs entered the Grand Banks area during the last half of the month. These bergs were distributed along the northeast slope of the Grand Banks between the 100 and 1,000 fathom curves. Nine bergs crossed the 8th parallel during March. The most southerly of these was reported 25 March in 46°24′N., 47°35′W., and the most easterly was reported on the 29th in 47°54′N., 45°32′W.

By the last week in March, the south and east limits of the field ice in the Grand Banks area approximated a line from Baccalieu Island to 48°N., 49°W. to 49°N., 49°W.

In the Gulf of St. Lawrence area, the steamer track from Cabot Strait to the Gaspe Passage was navigable with caution during the last 10 days of March. Considerable pack persisted throughout the month to the southwest of this track in the Gulf of St. Lawrence, the western part of Cabot Strait and in the St. Lawrence River.

The distribution of ice reported during March in the Grand Banks area is shown graphically in figure 8.

APRIL

That the 1956 ice season would be a light one was foreshadowed by the fact that only 13 bergs drifted south across the 48th parallel in April and the field ice limits in the Grand Banks area advanced no farther south than 47°20′N. or farther east than 48°W. All berg and growler positions reported during the month lay inside a line from Cape Spear to 46°N., 49°W. to 46°N., 47°W. to 49°N., 49°W.

Except for some isolated pieces of pack ice, the steamer track from Cabot Strait to Gaspe Passage and up river was clear by 4 April. By the end of the month the heavy pack to the southwest of this track disappeared except for some scattered pack off the east and west coasts of Cape Breton Island.

The distribution of ice reported in April in the Grand Banks area is shown graphically in figure 9.

MAY

Thirty-four bergs drifted south across the 48th parallel in May. Most of these moved into positions fairly evenly distributed along the east coast of the Avalon Peninsula and the north and east slopes of the Grand Banks before melting completely. A few drifted into the sector north of Flemish Cap. The most southerly berg of the season was reported 28 May in 44°58′N., 49°22′W. The most southerly ice of the season was a group of growlers reported 28 May in 42°48′N., 50°21′W.

The Grand Banks area was clear of field ice after 4 May.

Although the Strait of Belle Isle was navigable by about 16 May, the eastern approaches remained blocked by heavy pack throughout the month.

The distribution of ice reported in the Grand Banks area during May is shown graphically in figure 10.

JUNE

A few bergs were to be found throughout the month of June in that part of the Grand Banks area north of a line from Cape Race to Flemish Cap. Although 21 bergs came south across the 48th parallel during the month, the total number of bergs in the Grand Banks area at any particular time was steadily being reduced by the rising sea temperatures as the month wore on.

The pack ice blocking the eastern approaches to the Strait of Belle Isle was almost gone by 16 June. Numerous bergs persisted throughout the month along the steamer lane through the strait and east to the 1,000 fathom curve.

The distribution of ice reported in the Grand Banks area during June is shown graphically in figure 11.

JULY

Increasing sea surface temperatures eleminated all ice from the Grand Banks area in July except for three or four bergs which persisted almost to the end of the month near the 100 fathom curve in the northeast sector and two or three bergs aground along the east coast of the Avalon Peninsula. Three bergs drifted south across the 48th parallel during the month.

Numerous reports were received in July of bergs encumbering the Strait of Belle Isle and its eastern approaches.

AUGUST—NOVEMBER

No ice was reported south of latitude 50° N. during the period August-November except a berg reported 22 September in 49°55′ N., 49°55′ W.

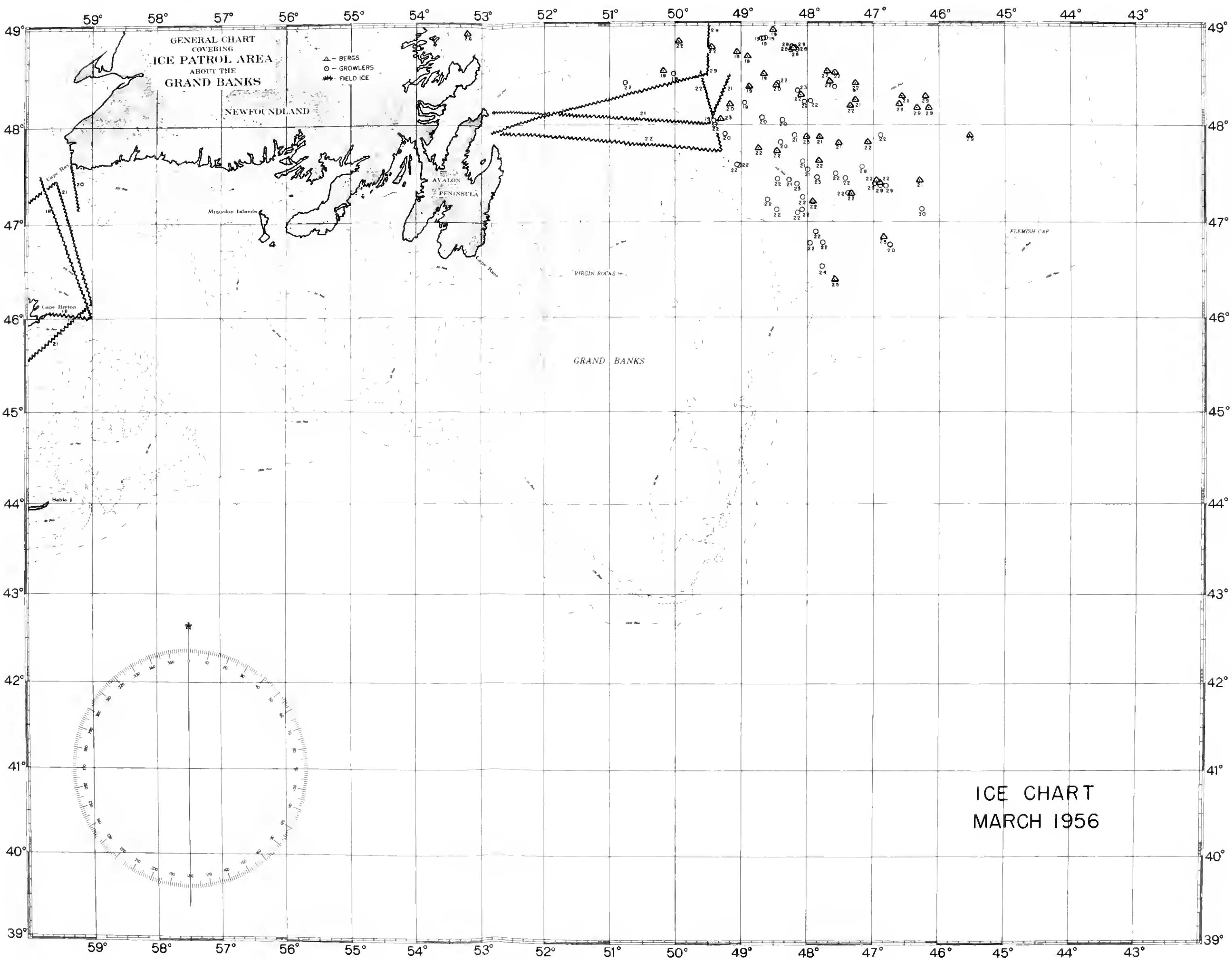

FIGURE 8.—Ice conditions, March 1956. Figures indicate day of month ice was sighted or reported.

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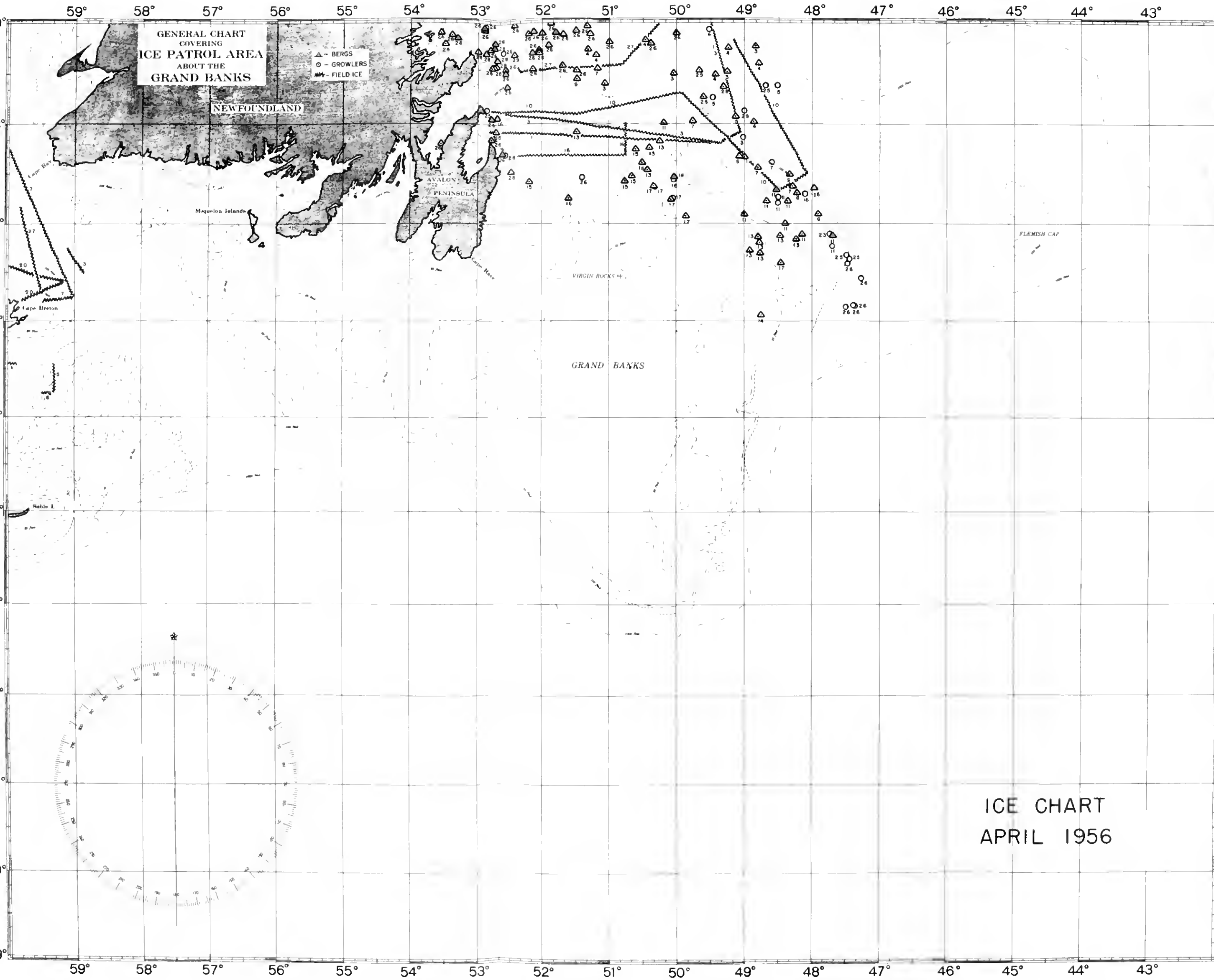

Figure 9.—Ice conditions, April 1956. Figures indicate day of month ice was sighted or reported.

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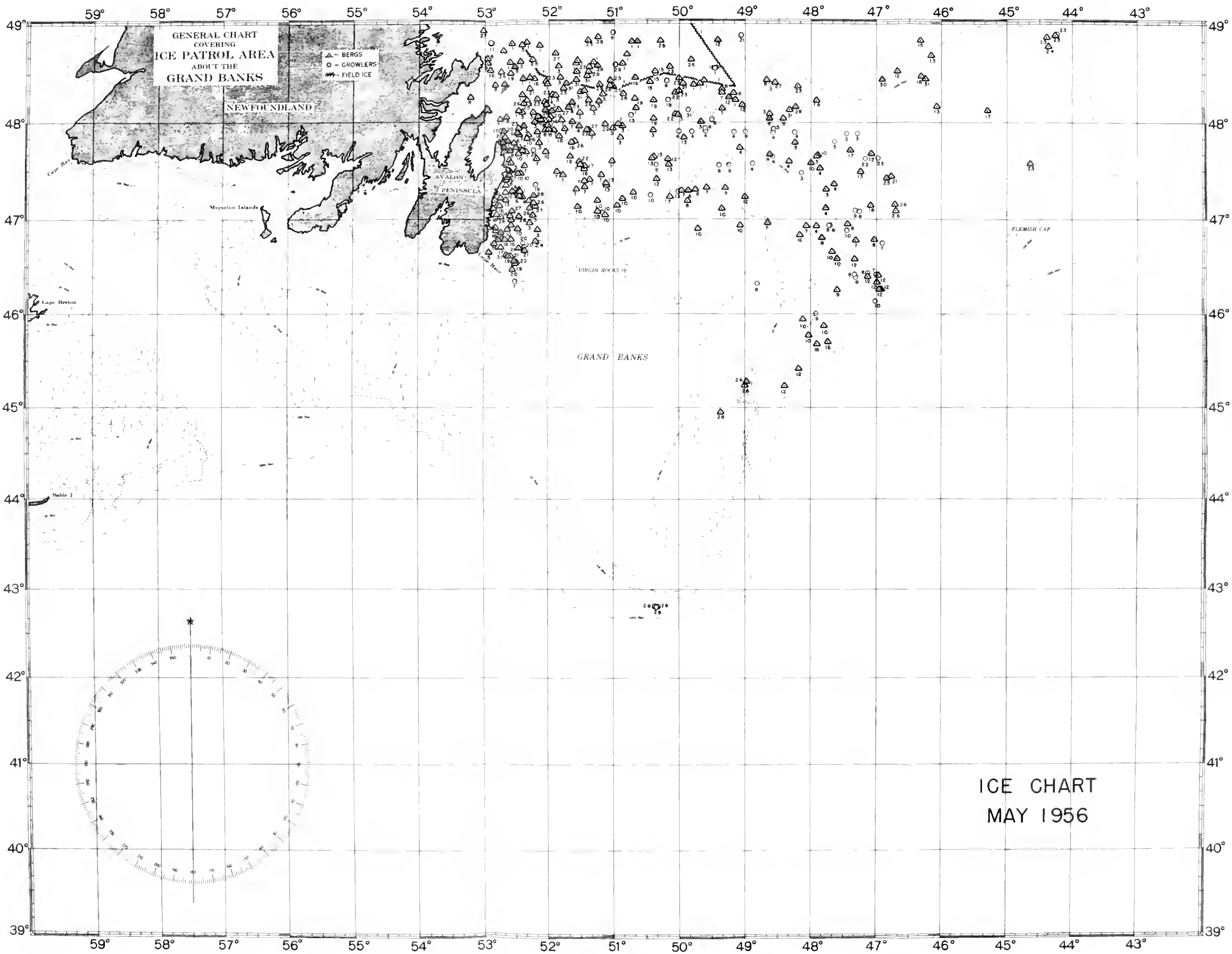

FIGURE 10.—Ice conditions, May 1956. Figures indicate day of month ice was sighted or reported.

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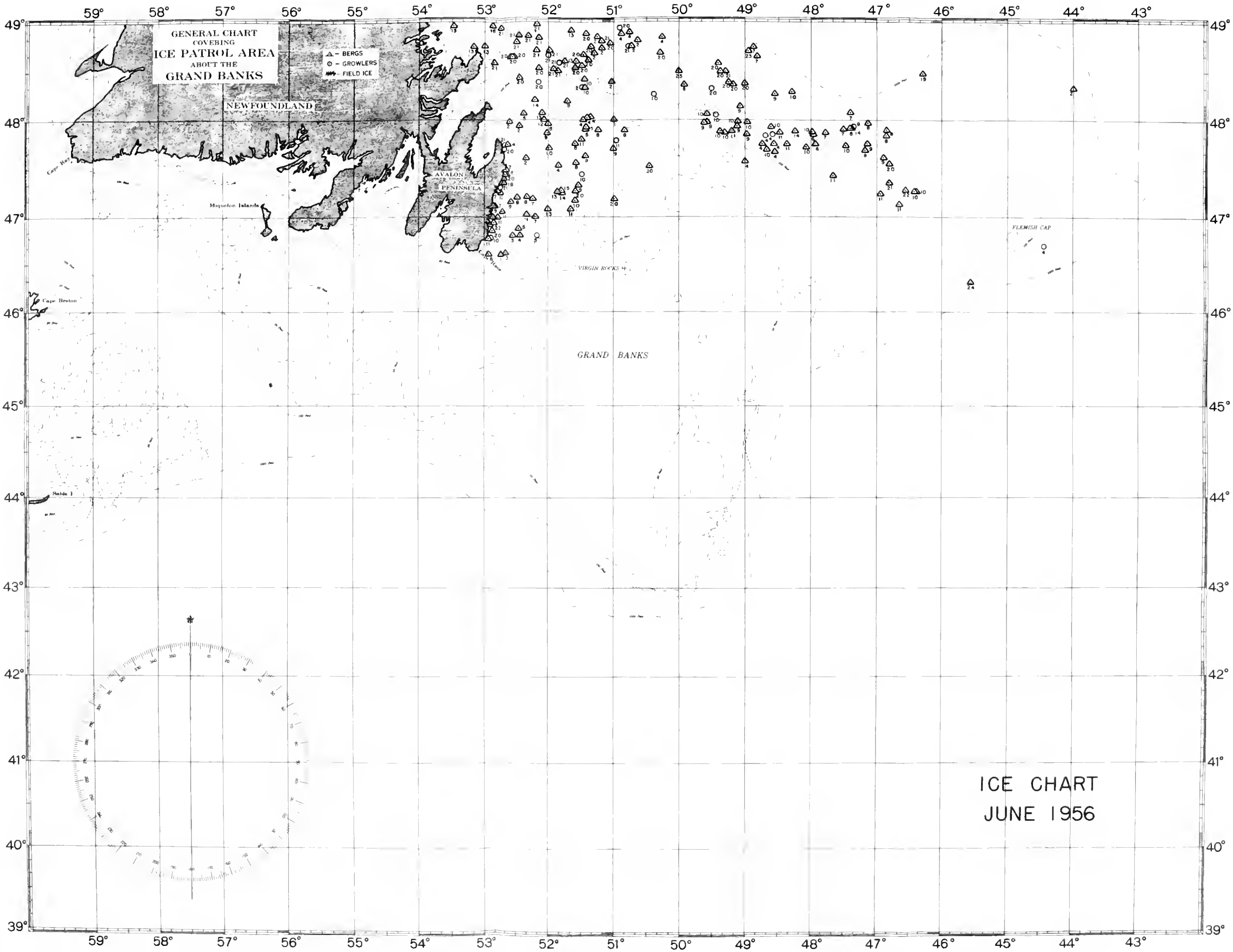

FIGURE 11.—Ice conditions, June 1956. Figures indicate day of month ice was sighted or reported.

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DECEMBER

During December, two bergs were reported close inshore off the east coast of the Avalon Peninsula, one berg was reported aground near Cape Freels, and on the 29th a berg was reported in 49°10′ N., 51°22′ W. No other ice was reported south of the 50th parallel.

TABLE OF ICE REPORTS, 1956

No:	Date	Name of vessel	North Latitud ° ′	West Longitude ° ′	Description
1	Feb. 21	USCG plane	West of Funk Island		Pancake floes.
2	Mar. 6	Ice Patrol plane	Line from 50 30 to 51 20	52 40 to 51 20	Southern limit ice field.
3	---do	-----do	50 42	51 05	Growler.
4	---do	-----do	50 42	52 06	Do.
5	Mar. 7	-----do	Orange Bay to St. Barbe Island to 50 00 to 50 00	55 15 to 54 00	Southern limit ice field.
6	---do	-----do	Fogo Island to Cape Freels		Scattered belts of brash ice.
7	Mar. 8	USCGC Duane	50 25	50 55	Eastern limit ice pack.
8	---do	-----do	50 44	51 55	Widely scattered bits.
9	Mar. 9	-----do	51 45	50 38	Broken field ice.
10	---do	-----do	53 20	50 34	Growler.
11	Mar. 10	USCGC Chincoteague	51 14	49 23	Small berg.
12	---do	-----do	51 20	49 40	Do.
13	Mar. 11	USNS Sgt. Jonah E. Kelley	46 10	59 29	Ice field, 1 mile by 2 miles.
14	---do	-----do	From 46 50 to 47 20	59 29 to 59 29	Field of pancake ice.
15	Mar. 12	Ice Patrol plane	Line from 49 40 to 50 20	52 10 to 50 20	Southern limit area with many strings and patches winter ice.
			51 00	50 50	
16	Mar. 13	Ice Patrol plane	51 52	55 42	Small bergs.
17	---do	-----do	51 59	55 28	Do.
18	---do	-----do	52 02	55 23	Do.
19	---do	-----do	50 39	55 44	Growler.
20	---do	-----do	52 03	55 11	Do.
21	---do	-----do	North of a line from Cape St. John to 50 05	54 10	Scattered to close pack field ice in belts and field.
22	---do	-----do	Strait of Belle Isle, south side		Close pack field ice.
23	---do	-----do	Straight of Belle Isle, north side		Broken field ice with numerous patches of open water.
24	Mar. 16	Ice Patrol plane	Area bounded by a line from Cape North to Scatari Island to 46 00 to 47 30	59 00 to 59 50	Many belts and patches heavy field ice.
25	---do	-----do	49 00	51 20	Patch of field ice.
26	---do	USN plane	51 45	54 25	Berg.
27	Mar. 18	Ice Patrol plane	49 10	49 22	Do.
28	---do	-----do	49 35	52 35	Do.
29	---do	-----do	50 00	50 40	Do.
30	---do	-----do	50 15	50 05	Do.
31	---do	-----do	49 30	49 10	9 growlers within a radius of 20 miles.
32	---do	-----do	North of a line from 48 20 to 48 20 to 48 35 to 50 00	52 50 to 51 22 to 50 43 to 51 10	Many belts and patches of light to very heavy field ice.
33	Mar. 19	Fort Avalon	Vicinity Cape Ray and extending 30 miles to south.		Extensive patches slob ice.
34	Mar. 19	Mormacmoon	48 22	48 54	Berg.
35	---do	-----do	48 02	49 24	Growler.
36	---do	-----do	48 13	48 57	Do.
37	---do	Kristina Thorden	48 42	48 54	Berg.
38	---do	-----do	48 52	48 40	3 growlers.
39	---do	Newfoundland	45 10	60 00	3 small patches of light field ice.
40	---do	Ice Patrol plane	48 30	48 40	Berg.
41	---do	-----do	48 33	50 11	Do.
42	---do	-----do	48 45	49 05	Do.
43	---do	-----do	48 58	48 33	Do.
44	---do	-----do	48 30	50 02	Growler.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
45	---do----	-----do----------	North of a line from 48 35 to 48 22 to 48 38	50 42 to 50 10 to 50 15	Scattered to heavy field ice.
46	---do----	Fort Avalon----------	Vicinity Cape Breton Island as far south as Latitude 45 30.		Small patches light slob ice.
47	Mar. 20	Transpacific----------	46 45	46 45	Growler.
48	---do----	Ice Patrol plane----------	48 12	49 11	Berg.
49	---do----	-----do----------	48 24	48 29	Do.
50	do----	-----do----------	47 49	48 24	Growler.
51	---do----	-----do----------	47 55	49 16	3 growlers.
52	---do----	-----do----------	48 02	48 23	Growler.
53	---do----	-----do----------	48 03	48 41	Do.
54	---do----	-----do----------	48 00	49 42	Small patch of light field ice.
55	---do----	-----do----------	A line from 48 14 to 48 08 to 48 18 to 48 38	52 55 to 49 30 to 49 00 to 49 11	Southern limit of ice field.
56	Mar. 20	Unidentified plane----------	51 44	53 29	Berg.
57	Mar. 21	Caxton----------	47 26	46 18	Do.
58	---do----	-----do----------	47 27	48 17	Growler.
59	---do----	-----do----------	47 32	48 00	Do.
60	---do----	-----do----------	47 38	48 05	Do.
61	---do----	Newfoundland----------	47 49	47 32	Berg.
62	do----	Ice Patrol plane----------	From east coast Cape Breton Island to a line from St. Paul Island to Scatari Island.		Field of closepack.
63	---do----	-----do----------	To seaward of line from St. Paul Island to Scatari Island and inside a line from St. Paul Island to 47 29 to 46 07 to 45 23 to 45 47	59 32 to 59 00 to 60 05 to 60 05	Many strings and patches slob ice and brash.
64	---do----	American Robin----------	47 52	47 49	Berg.
65	---do----	-----do----------	48 16	47 17	Do.
66	---do----	-----do----------	47 54	48 11	Growler.
67	---do----	Canadian Dept. of Transport.	Northumberland Strait--------		70 percent cover.
68	---do----	-----do----------	Bird Rocks to 48 50	63 20	Clear.
69	---do----	-----do----------	Gulf south of above line--------		70 percent cover.
70	---do----	-----do----------	Chaleur Bay--------		100 percent cover.
71	---do----	-----do----------	George Bay--------		Do.
72	Mar. ι21	Canadian Dept. of Transport.	MagdalenIslands to Cape Breton Islands		90 percent cover.
73	Mar. 22	Ice Patrol plane----------	47 25	46 55	Small berg.
74	do------	-----do----------	47 38	47 50	Small berg (same as No. 64).
75	---do----	-----do----------	47 44	48 28	Small berg.
76	do----	-----do----------	47 49	47 06	Small berg (same as No. 61).
77	---do----	-----do----------	48 11	47 21	Small berg.
78	---do----	-----do----------	48 27	47 40	Do.
79	---do----	-----do----------	48 48	49 27	Do.
80	---do----	-----do----------	48 50	49 57	Medium berg.
81	---do----	-----do----------	46 47	47 46	Growler.
82	---do----	-----do----------	46 47	47 58	Do.
83	---do----	-----do----------	46 54	47 53	Do.
84	---do----	-----do----------	47 06	48 09	Do.
85	---do----	-----do----------	47 08	48 28	Do.
86	---do----	-----do----------	47 14	48 36	Do.
87	---do----	-----do----------	47 15	48 04	Do.
88	---do----	-----do----------	47 27	48 27	Do.
89	---do----	-----do----------	47 28	47 26	Do.
90	---do----	-----do----------	47 30	47 34	Do.
91	---do----	-----do----------	47 36	49 04	Do.
92	---do----	-----do----------	47 53	47 54	Do.
93	---do----	-----do----------	48 00	49 24	Do.
94	---do----	-----do----------	48 14	47 57	Do.
95	---do----	-----do----------	48 14	48 03	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
96	---do----	-----do	48 20	48 09	Do.
97	---do----	-----do	48 23	47 35	Do.
98	---do----	-----do	48 26	48 27	Do.
99	---do----	-----do	48 27	50 46	Do.
100	---do----	-----do	North of a line from Baccalieu Island to 48 20	49 15	Scattered to heavy field ice.
101	---do----	-----do	Between lats. 47° 45′ N. and 48° 20′ N. and longs. 49° 15′ W. and 50° 05′W.		Light strings brash ice.
102	Mar. 22	Mormacpenn	47 12	47 56	Berg.
103	---do----	-----do	47 18	47 20	Berg and growler.
104	---do----	-----do	47 26	46 58	Berg (same as No. 73).
105	---do----	Welheim	47 46	48 45	Berg and growler (same as No. 75).
106	---do----	-----do	47 35	49 03	Growler.
107	---do----	-----do	48 31	47 35	Berg.
108	---do----	-----do	48 32	47 42	Do.
109	---do----	Nova Scotia	48 26	47 17	Small berg.
110	Mar. 23	Foldenfjord	47 08	48 06	Growler.
111	---do----	-----do	47 29	47 52	Do.
112	---do----	Stavangerfjord	48 03	49 19	Small berg.
113	---do----	-----do	48 18	48 06	Do.
114	---do----	-----do	48 24	48 10	Growler.
115	---do----	Unidentified plane	49 50	50 10	Berg.
116	Mar. 24	Ice Patrol plane	From east coast Cape Breton Island to a line from 47 20 to Scatari Island	60 00	Field of close pack.
117	---do----	-----do	Within 20 miles coastline between Scatari Island and Fourchu Bay.		A few scattered strings field ice.
118	---do----	Grootebeer	46 32	47 47	Growler.
119	Mar. 25	Monrovia	46 24	47 35	Berg (same as No. 74).
120	---do----	Tidaholm	46 50	46 52	Berg (same as No. 104).
121	---do----	Ranenfjord	47 51	48 02	Berg (same as No. 79).
122	Mar. 26	Ice Patrol plane	48 56	53 13	Small berg.
123	---do----	-----do	Conception Bay, mouth of Trinity Bay and Bonavista Bay.		Clear.
124	---do----	-----do	North and east of a line from 48 32 to Cape Freels	52 30 to Cape Fogo:	Scattered to broken field ice.
125	Mar. 26	Ice Patrol plane	Bay of Exploits from Botwood to north end of Thwart Island.		Close field ice.
126	---do----	-----do	North of a line from North Head to North Twillingate Island to Bacalhao Island to Farewell Head.		Scattered to broken field ice.
127	---do----	Canadian Dept, of Transport.	Northumberland Strait		75 percent cover.
128	---do----	-----do	West of line from North Point to Cape d'Espoir.		Clear.
129	---do----	-----do	Gasp ɛ Passage		Loose drift.
130	---do----	-----do	SW of a line from 49 20 to 47 20	64 30 to 59 40	Do.
131	---do----	-----do	NE above line to end of 30 mile visibility.		Clear.
132	---do----	-----do	Off west coast Cape Breton Island to a line from Magdalen Islands to East Point.		90 percent cover.
133	---do----	-----do	Off east coast Cape Breton Island to a line from 47 20 to 46 00	59 40 to 59 00	60 percent cover.
134	Mar. 28	Wangaratta	48 12	46 37	Berg.
135	---do----	-----do	48 17	46 33	Do.
136	---do----	Tilia Gorthon	48 46	48 14	2 bergs and several growlers:
137	---do----	USCGC Evergreen	45 26	59 06	Strings of scattered field ice:
138	Mar. 29	Ice Patrol plane	48 10	46 09	Berg.
139	---do----	-----do	48 10	46 20	Do.
140	---do----	-----do	48 17	46 12	Do.
141	Mar. 29	Ice Patrol plane	47 22	46 50	Growler.
142	---do----	-----do	47 23	46 53	Do.
143	---do----	-----do	47 24	46 59	Do.
144	---do----	-----do	47 35	47 11	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
145	---do-----	Green Mountain State------	47 54	45 32	Berg.
146	Mar. 30	Sarah Bowater------------	45 37	59 20	Scattered strings field ice.
147	---do-----	Ice Patrol plane-----------	Between 48 14 and 48 00	49 55 and 49 05	Scattered brash ice.
148	---do-----	-----do-------------------	Between 48 22 and 48 15	51 52 and 50 40	Do.
149	---do-----	Saggat-------------------	47 09	46 15	Growler.
150	---do-----	Canadian Dept. of Transport.	Northumberland Strait--------		70 percent cover.
151	---do-----	-----do-------------------	Inside a line from Cape Bear to Cape George to Cape North to Magdalen Islands.		Close pack.
152	---do-----	-----do-------------------	Steamer track from 10 miles north of Bird Rocks to 49 30	64 40	Isolated pieces.
153	---do-----	USN plane----------------	Strait of Belle Isle, vicinity of Belle Isle.		40–100 percent cover.
154	Mar. 31	USNS Sgt. Jonah E. Kelley	In lat. 45°33′ N. between longs. 59°32′ W. and 60°00′ W.		Heavy packed slush ice.
155	---do-----	City of Perth-------------	47 48	49 24	Southern edge ice field.
156	Apr. 1	USCGC Duane------------	48 40	49 00	Berg.
157	Apr. 2	Ice Patrol plane-----------	In lat. 48°10′ N. between longs. 49° 45′ W. and 50° 15′ W.		Strings field ice.
158	Apr. 2	Sunprincess---------------	46 30	58 52	Field ice.
159	---do-----	-----do-------------------	46 45	59 07	Do.
160	Apr. 3	Ice Patrol plane-----------	48 23	51 04	Large berg.
161	---do-----	-----do-------------------	48 30	49 15	Small berg.
162	---do-----	-----do-------------------	48 30	50 03	Do.
163	---do-----	-----do-------------------	48 45	48 50	Do.
164	---do-----	-----do-------------------	47 51	49 01	Growler.
165	---do-----	-----do-------------------	Line from 48 00 to 47 35 to 48 40	50 45 to 49 03 to 48 45	Southern limit area with many strings and patches field ice.
166	Apr. 4	Fort Avalon--------------	Northward of a line from 45 18 to 45 18	59 20 to 59 23	Loose field ice.
167	---do-----	Ice Patrol plane-----------	48 01	48 52	Small berg.
168	---do-----	-----do-------------------	48 29	49 26	Do.
169	---do-----	-----do-------------------	48 35	48 47	Do.
170	---do-----	-----do-------------------	48 40	51 11	Large berg.
171	---do-----	-----do-------------------	48 43	51 19	Small berg.
172	---do-----	-----do-------------------	48 44	49 14	Do.
173	---do-----	-----do-------------------	48 49	50 28	Do.
174	---do-----	-----do-------------------	49 05	50 10	Do.
175	---do-----	-----do-------------------	49 15	50 35	Do.
176	---do-----	-----do-------------------	49 17	50 27	Do.
177	---do-----	-----do-------------------	49 26	50 58	Do.
178	---do-----	-----do-------------------	49 42	49 31	Medium berg.
179	---do-----	-----do-------------------	49 14	49 05	Growler.
180	---do-----	-----do-------------------	Line from Baccalieu Island to 48 30 to 47 35 to 48 05 to 49 20	50 30 to 49 15 to 48 50 to 50 00	Southern limit ice field.
181	Apr. 4	Jokulfell-----------------	49 13	45 55	Berg.
182	---do-----	Canadian Dept. of Transport	Northumberland Straits-------		70 percent cover.
183	---do-----	-----do-------------------	George Bay----------------		90 percent cover.
184	---do-----	-----do-------------------	Line from 10 miles east of Scatari Island to 45 45 to 46 50 to St. Paul Islands.	58 50 to 59 10	Outside limits field ice.
185	---do-----	-----do-------------------	Along west coast Cape Breton Island from St. Paul Island to Magdalens to Prince Edward Island to Cape George.		Large body field ice.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′		
186	---do-----	-----do-----------------	From 20 miles southeast Brion Island around north coast Magdalens to Amherst Island.		Close packed field ice.
187	---do-----	-----do-----------------	Deadman's Island to Bonaventure Island.		Some heavy fields.
188	---do-----	-----do-----------------	Steamer track up St. Lawrence River.		Clear except for isolated pieces.
189	Apr. 5	Ice Patrol plane-----------	48 04	49 07	Small berg.
190	---do-----	-----do-----------------	48 15	49 28	Growler.
191	---do-----	-----do-----------------	48 22	48 30	Do.
192	---do-----	-----do-----------------	In lat. 47°52′ N. between longs. 48°12′ W. and 48°30′ W.		Scattered strings and bits field ice.
193	Apr. 5	Ice Patrol plane-----------	North and west of a line from 48 08 to 48 00 to 48 20 to 48 50	 49 30 49 10 48 50 49 50	Scattered strings loose pack ice.
194	---do-----	Hydro-------------------	49 30 to	51 12	Berg.
195	---do-----	Fort Hamilton------------	Northward of a line from 45 15 to 45 16	 59 20 59 27	Loose field ice.
196	---do-----	Nova Scotia--------------	Northward of a line from 45 15 to 45 17	 59 21 59 27	Do.
197	Apr. 6	Rathlin Head------------	From 47 44 to south-southeast to limit of visibility	 60 08	Field ice.
198	---do-----	Ice Patrol plane-----------	48 56	49 32	Large growler.
199	---do-----	-----do-----------------	Along a line from 48 30 to 48 58 in 2 mile visibility.	 49 32 49 32	Scattered to heavy field ice.
200	Apr. 7	Transport. Canadian Dept. of Transport.	Northumberland Straits-------		50 percent cover.
201	---do-----	-----do-----------------	Wood Island to East Point to Cape George.		60 percent cover.
202	---do-----	-----do-----------------	George Bay-----------------		80 percent cover.
203	Apr. 7	Canadian Dept. of Transport.	West coast Cape Breton Island.		Large body of ice.
204	---do-----	-----do-----------------	From 13 miles northeast Scatari Island to 46 15 to 47 45	 59 00 60 00	Very loose ice.
205	---do-----	-----do-----------------	South of a line from 47 45 to 48 05	 60 00 61 45	Drift ice.
206	---do-----	-----do-----------------	From 48 05 westward and to Grindstone.	 61 45	Many small fields.
207	---do-----	-----do-----------------	Mount of Chaleur Bay--------		Large field.
208	---do-----	Nova Scotia--------------	47 33	48 48	Berg.
209	---do-----	-----do-----------------	47 35	48 48	Bergy bit.
210	---do-----	-----do-----------------	47 37	48 35	Growler.
211	---do-----	Ice Patrol plane-----------	47 22	48 18	Small berg.
212	---do-----	-----do-----------------	48 01	48 46	Do.
213	---do-----	-----do-----------------	48 32	51 10	Large berg.
214	---do-----	-----do-----------------	Line from Baccalieu Island to 48 30 to 47 35 to 48 50	 50 30 49 00 49 10	Southern limits field ice.
215	Apr. 9	-----do-----------------	47 06	47 56	Small berg (same as No. 211).
216	---do-----	-----do-----------------	47 19	48 14	Small berg (same as No. 208).
217	---do-----	-----do-----------------	47 30	48 20	Small berg (same as No. 212).
218	---do-----	-----do-----------------	47 40	49 06	Small berg.
219	---do-----	-----do-----------------	48 26	51 29	Large berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
220	Apr. 9	Ice Patrol plane	North of a line from Baccalieu Island to 48 05 to 48 18 to 47 20 to 47 30 to 48 50	 51 30 49 55 48 30 48 05 49 10	Scattered to close pack field ice.
221	do	Newfoundland	47 38	48 20	Broken slob ice.
222	Apr. 11	Ice Patrol plane	47 00	48 24	Small berg (same as No. 215).
223	do	do	47 13	48 21	Small berg (same as No. 216).
224	do	do	47 13	48 40	Small berg.
225	do	do	47 20	48 32	Small berg (same as No. 217).
226	do	do	47 45	49 08	Radar target, probable berg (same as No. 218).
227	do	do	47 12	48 30	Small growler.
228	do	do	47 16	48 30	Do.
229	do	do	A line from 48 00 to 48 00 to 47 30 to 47 42 to 48 30	 52 40 49 50 49 30 48 41 49 00	Southern limit field ice.
230	do	Canadian Dept. of Transport.	Steamer track, Cabot Strait to Gaspe Passage.		Clear, except isolated pieces.
231	do	do	From Cape North to Sydney Harbour.		String of close pack ice 3 to 8 miles wide.
232	do	Mormacpenn	46 46	47 42	Small growler.
233	do	Ice Patrol plane	46 52	48 17	Small berg (same as No. 223).
234	do	do	47 05	49 00	Small berg (same as No. 225).
235	Apr. 11	Ice Patrol plane	48 00	50 11	Medium berg.
236	do	do	North of a line from 48 00 to 47 57 to 47 25 to 47 35 to 48 30	 52 40 50 25 49 50 48 40 49 00	Scattered to close pack field ice.
237	do	Manchester Mariner	46 53	48 09	Berg (same as No. 233).
238	do	Canadian Dept. of Transport.	Along Cape Breton west coast.		Large body heavy ice.
239	do	do	Steamer track, Cabot Strait to Gaspe Passage.		Clear of ice.
240	Apr. 13	Ice Patrol plane	46 41	48 46	Small berg (same as No. 224).
241	do	do	46 50	48 14	Small berg (same as No. 237).
242	do	do	46 51	48 47	Small berg (same as No. 234).
243	do	do	47 32	50 26	Medium berg.
244	do	do	47 46	50 24	Small berg.
245	do	do	47 49	50 15	Medium berg (same as No. 235).
246	do	do	47 55	51 29	Medium berg.
247	do	do	North of a line from Torbay to 47 37 to 47 52 to 47 33 to 47 35 48 10	 52 30 50 52 50 43 49 48 49 40	Southern limit field ice.
248	do	Mormacelm	46 42	48 56	Berg (same as No. 240).
249	do	do	46 52	48 28	Small berg (same as No. 241).
250	Apr. 13	USCGC Evergreen	46 48	48 43	Small berg (same as No. 242).
251	Apr. 14	Stockholm	46 04	48 45	Small berg (same as No. 222).
252	Apr. 15	Ice Patrol plane	47 26	50 46	Small berg (same as No. 243).
253	do	do	47 26	52 11	Small berg.
254	do	do	47 29	50 40	Small berg (same as No. 244).
255	do	do	47 45	50 36	Medium berg (same as No. 245).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
256	---do-----	-----do------	Line from 47 53 to 47 40 to 47 40 to 48 00	52 45 to 52 30 to 50 45 to 50 45	Southern limit field ice.
257	Apr. 16	-----do------	47 15	51 36	Small berg (same as No. 253).
258	---do-----	-----do------	47 21	47 58	Small berg.
259	---do-----	-----do------	47 28	50 02	Small berg (same as No. 254).
260	---do-----	-----do------	47 37	50 31	Medium berg (same as No. 255).
261	---do-----	-----do------	47 56	52 43	Medium berg.
262	---do-----	-----do------	48 03	52 42	Small berg.
263	---do-----	-----do------	47 18	48 07	Growler.
264	---do-----	-----do------	47 27	50 05	Do.
265	---do-----	-----do------	North of a line from 47 52 to 47 32 to 47 30 to 47 50	52 45 to 52 33 to 51 46 to 51 27	Scattered to close pack field ice.
266	Apr. 17	Columbia	47 22	50 20	Berg and growlers (same as No. 259).
267	---do-----	Vatnajokull	47 14	50 05	Berg (same as No. 266).
268	---do-----	USN vessel	47 04	49 52	Berg (same as No. 267).
269	---do-----	Empress of Scotland	46 36	48 28	Berg (same as No. 248).
270	---do-----	Canadian Dept. of Transport.	Charlottetown entrance to East Point to Cape George.		Scattered strings heavy ice.
271	Apr. 17	Canadian Dept. of Transport.	George Bay		60 percent cover.
272	---do-----	-----do------	West coast Cape Breton Island to White Capes to 47 05 to 20 miles north of East Point.	61 10	Loose drift.
273	---do-----	-----do------	From above position to 20 miles off Savage Harbour.		Heavy drift.
274	---do-----	-----do------	Steamer track, Cabot Strait to Gaspe Passage.		Clear of ice.
275	---do-----	-----do------	30 miles northeast of Sydney Harbour.		Scattered fields of heavy drift.
276	Apr. 19	L'Aventure	Vicinity of 46 18 and westward	59 07	Ice field 5 miles wide.
277	---do-----	-----do------	46 35	59 30	Dense ice field.
278	---do-----	Canadian Dept. of Transport.	George Bay		60 percent cover of heavy drift ice.
279	---do-----	-----do------	Inside a line from Flint Island to 46 25 to Cape Smoky.	59 10	40 percent cover of heavy drift ice.
280	---do-----	-----do------	Inside a line from Cape St. Lawrence to 47 00 to East Point to Cape Breton Island coast.	62 00	60 percent cover of heavy drift ice.
281	Apr. 20	Hydro	West of a line from 49 30 to 50 00 to 50 30 to 50 25 to 50 45	53 00 to 54 30 to 53 50 to 54 15 to 54 10	Eastern limits field ice.
282	Apr. 20	Hydro	Between Newfoundland coast and a line from North Twillingate Island to 49 50 thence along east coast Fogo Island thence 5 miles off shore closing to coast at Cape Freels.	54 05	Clear of ice.
283	Apr. 21	Unidentified plane	85 miles ESE Gander		Several large brgs.
284	Apr. 23	Ice Patrol plane	46 54	47 44	Large growler.
285	Apr. 24	Canadian Dept. of Transport.	Area between Flint Island and St. Paul Island.		Scattered fields of loose drift ice.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
286	---do-----	-----do------------------	Along west coast Cape Breton Island.		Body of heavy drift ice.
287	Apr. 25	Ice Patrol plane----------	48 04	52 42	Berg.
288	---do-----	-----do------------------	46 40	47 30	Growler.
289	---do-----	-----do------------------	48 08	52 52	Do.
290	---do-----	Irmingard----------------	46 38	47 27	Growler.
291	---do-----	BOAC plane---------------	49 05	53 05	2 bergs.
292	---do-----	Newfoundland-------------	48 22	48 41	Growler and bergy bits.
293	Apr. 26	Ice Patrol plane----------	47 48	53 32	Small berg.
294	---do-----	-----do------------------	47 50	52 47	Small berg (same as No. 261).
295	---do-----	-----do------------------	48 03	52 47	Small berg.
296	---do-----	-----do------------------	48 22	52 32	Medium berg.
297	---do-----	-----do------------------	48 31	51 29	Small berg.
298	---do-----	-----do------------------	48 34	51 42	Do.
299	---do-----	-----do------------------	48 42	52 03	Medium berg.
300	---do-----	-----do------------------	48 45	52 45	Small berg.
301	---do-----	-----do------------------	48 46	51 55	Do.
302	Apr. 26	Ice Patrol plane----------	48 48	50 23	Medium berg.
303	---do-----	-----do------------------	48 52	51 17	Small berg.
304	---do-----	-----do------------------	48 53	52 00	Do.
305	---do-----	-----do------------------	48 55	50 00	Medium berg.
306	---do-----	-----do------------------	48 55	52 08	Small berg.
307	---do-----	-----do------------------	48 56	51 30	Do.
308	---do-----	-----do------------------	48 58	51 20	Large berg.
309	---do-----	-----do------------------	48 59	52 26	Small berg.
310	---do-----	-----do------------------	49 00	51 52	Medium berg.
311	---do-----	-----do------------------	49 01	51 25	Small berg.
312	---do-----	-----do------------------	A line from 48 50 to 48 28 to 48 30 to 49 00	 52 40 52 20 50 55 50 15	Southern limits field ice.
313	---do-----	US Navy plane------------	48 49	51 00	Berg.
314	---do-----	Dunadd-------------------	46 35	47 29	Growler.
315	---do-----	Ice Patrol plane----------	48 42	52 56	Small berg.
316	---do-----	-----do------------------	48 43	52 49	Medium berg.
317	---do-----	-----do------------------	48 43	53 00	Small berg.
318	---do-----	-----do------------------	48 52	51 41	Berg.
319	---do-----	-----do------------------	48 53	51 47	Do.
320	---do-----	-----do------------------	48 53	52 31	Do.
321	---do-----	-----do------------------	48 53	53 33	Do.
322	---do-----	-----do------------------	48 56	52 55	Do.
323	---do-----	-----do------------------	49 02	52 57	Do.
324	---do-----	-----do------------------	49 07	53 28	Do.
325	---do-----	-----do------------------	49 09	52 47	Do.
326	---do-----	-----do------------------	49 11	52 23	Do.
327	---do-----	-----do------------------	49 14	53 27	Do.
328	---do-----	-----do------------------	49 20	52 15	Do.
329	---do-----	-----do------------------	49 26	53 03	Do.
330	Apr. 26	Ice Patrol plane----------	49 27	53 14	Berg.
331	---do-----	-----do------------------	49 29	52 44	Do.
332	---do-----	-----do------------------	49 30	52 21	Large berg.
333	---do-----	-----do------------------	50 06	51 05	Medium berg.
334	---do-----	-----do------------------	50 14	52 38	Small berg.
335	---do-----	-----do------------------	North of lat. 48 50N and west of a line from 48 50 to 49 20 to 50 30	 50 10 50 20 51 40	Scattered to heavy concentrations of field ice.
336	---do-----	-----do------------------	From Cape Bonavista to Cape Freels.		Shore lead.
337	---do-----	Storfjedl----------------	48 57	52 55	Berg and growlers.
338	---do-----	-----do------------------	49 03	53 01	Berg.
339	---do-----	-----do------------------	48 43	52 37	Growlers.
340	---do-----	John W. MacKay-----------	47 42	52 37	Small berg (same as No. 294).
341	---do-----	Aramco plane-------------	48 33	52 52	Berg.
342	---do-----	-----do------------------	48 34	52 44	Do.
343	---do-----	-----do------------------	48 42	52 08	Do.
344	---do-----	Mapledell----------------	46 10	47 24	Do.
345	---do-----	City of Sydney-----------	46 10	47 24	Do.
346	---do-----	Manchester Spinner-------	46 27	47 17	Growler.
347	---do-----	Nova Scotia--------------	47 28	51 24	Do.
348	Apr. 28	Ice Patrol plane----------	47 31	52 29	Small berg (same as No. 340).
349	---do-----	-----do------------------	48 34	52 47	Small berg.
350	---do-----	-----do------------------	48 35	52 43	Medium berg.
351	---do-----	-----do------------------	48 38	52 43	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
352	---do----	-----do----	48 41	52 53	Do.
353	---do----	-----do----	48 47	53 29	Small berg.
354	---do----	-----do----	48 48	52 44	Medium berg.
355	---do----	-----do----	48 50	53 19	Small berg.
356	---do----	-----do----	48 52	53 24	Do.
357	---do----	-----do----	49 12	53 13	Do.
358	---do----	-----do----	49 12	53 16	Do.
359	Apr. 28	Ice Patrol plane	49 17	53 04	Small berg.
360	---do----	-----do----	49 18	53 27	Do.
361	---do----	-----do----	49 31	53 42	Do.
362	---do----	-----do----	49 31	53 45	Do.
363	---do----	-----do----	49 32	53 25	Do.
364	---do----	-----do----	49 38	54 56	Medium berg.
365	---do----	-----do----	49 40	53 29	Small berg.
366	---do----	-----do----	49 43	54 30	Do.
367	---do----	-----do----	49 53	53 21	Medium berg.
368	---do----	-----do----	47 41	52 35	Growler.
369	---do----	-----do----	47 44	52 30	Do.
370	---do----	-----do----	Line from 58 54 to 49 17 to 49 48 to 49 58 to 49 53 to 49 53	52 44 to 52 57 to 53 17 to 53 42 to 54 06 to 54 50	Inshore field ice limits.
371	---do----	Norderholm	48 21	49 18	Berg.
372	---do----	Monarch	From Ingonish Island to 47 08	60 15	Field ice.
373	---do----	-----do----	Inshore from Sydney Harbour entrance north to lat. 46 23N.		Do.
374	do----	Blairspey	46 09	47 30	Growler.
375	Apr. 29	Laurentia	48 08	49 00	Do.
376	---do----	Ice Patrol plane	48 16	49 36	Medium berg.
377	---do----	-----do----	48 31	49 40	Berg.
378	---do----	-----do----	48 41	52 25	Large berg.
379	Apr. 29	Ice Patrol plane	A line from 48 35 to 48 26 to 48 33	52 37 to 51 00 to 50 10	Southern limits field ice.
380	---do----	Stavangerfjord	48 06	49 16	Radar target, possible berg.
381	---do----	Canadian Dept. of Transport.	West coast Cape Breton Island.		Some loose drift.
382	---do----	-----do----	From Flint Island to St. Paul Island.		Scattered fields loose crift.
383	---do----	-----do----	Steamer track, Cabot Straits to Gaspe Passage.		Clear of ice.
384	Apr. 30	Chepman	Irregular line from 50 15 to 48 30	55 00 to 49 10	Southern limit field ice.
385	May 1	Ice Patrol plane	47 17	52 27	Small berg (same as No. 348).
386	---do----	-----do----	47 58	52 01	Small berg.
387	---do----	-----do----	48 02	52 46	Do.
388	---do----	-----do----	48 07	52 28	Medium berg.
389	---do----	-----do----	48 13	49 09	Small berg.
390	---do----	-----do----	48 17	52 25	Medium berg.
391	---do----	-----do----	48 22	49 47	Small berg.
392	---do----	-----do----	48 22	52 02	Medium berg.
393	---do----	-----do----	48 23	49 42	Small berg.
394	---do----	-----do----	48 25	49 37	Do.
395	---do----	-----do----	48 27	52 25	Do.
396	---do----	-----do----	48 28	52 17	Do.
397	---do----	-----do----	48 31	50 53	Medium berg.
398	---do----	-----do----	48 31	51 34	Small berg.
399	---do----	-----do----	48 36	50 52	Do.
400	---do----	-----do----	48 36	51 19	Do.
401	---do----	-----do----	48 37	51 35	Do.
402	---do----	-----do----	48 37	52 36	Medium berg.
403	---do----	-----do----	48 38	51 34	Small berg.
404	May 1	Ice Patrol plane	48 41	50 48	Medium berg.
405	---do----	-----do----	48 44	52 42	Small berg.
406	---do----	-----do----	48 47	52 09	Do.
407	---do----	-----do----	48 48	52 33	Medium berg.
408	---do----	-----do----	48 49	50 39	Small berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
409	---do----	-----do-----	48 49	50 45	Do.
410	---do----	-----do-----	48 49	52 21	Do.
311	---do----	-----do-----	49 02	51 17	Medium berg.
412	---do----	-----do-----	49 03	52 17	Small berg.
413	---do----	-----do-----	49 10	52 08	Do.
414	---do----	-----do-----	49 17	52 21	Do.
415	---d.o----	-----do-----	North of a line from 48 46 | 52 22 to 48 29 | 52 10 to 48 19 | 51 09 to 48 31 | 50 15 to 48 21 | 49 10 to 49 08 | 49 59		Scattered to heavy concentrations field ice.
416	---do----	Storfjeld-----	49 02	52 46	Berg.
417	---do----	-----do-----	49 33	53 41	Do.
418	---do----	-----do-----	49 33	53 43	Do.
419	---do----	-----do-----	49 37	53 42	Do.
420	---do----	-----do-----	11 miles NE of Cape Bonavista.		Several bergs and growlers.
421	---do----	-----do-----	4 miles NNE of Surgeon Cove.		Berg.
422	---do----	-----do-----	11 miles ENE of Twillingate---		4 growlers.
423	---do----	-----do-----	10 miles north of Twillingate---		Field ice.
424	---do----	Mormacrey-----	47 18	52 27	Small berg (same as No. 385).
425	May 2	Ice Patrol plane-----	49 32	53 32	Small berg.
426	---do----	-----do-----	49 32	53 35	Do.
427	---do----	-----do-----	49 33	53 38	Do.
428	---do----	-----do-----	49 44	54 22	Do.
429	---do----	-----do-----	50 08	55 31	Do.
430	---do----	-----do-----	50 50	55 42	Do.
431	---do----	-----do-----	51 22	55 25	Do.
432	---do----	-----do-----	Cape St. John to 49 45 | 55 15 to 49 52 | 54 00 to 49 32 | 53 12		Strings and patches of heavy to loose field ice.
433	---do----	-----do-----	Wood Island, Labrador, to Ferolle Point to Cape Bauld to 51 24 | 54 37		Belt of field ice 1 to 5 miles wide.
434	---do----	-----do-----	Northeast half, Straits of Belle Isle.		4 bergs.
435	---do----	-----do-----	Between Torrent Point, Labrador, and Belle Isle.		5 bergs.
436	---do----	Mormacrey-----	48 33	49 28	Growlers and field ice.
437	May 3	Ice Patrol plane-----	46 58	52 16	Small berg (same as No. 385).
438	---do----	-----do-----	47 39	47 55	Small berg.
439	---do----	-----do-----	47 44	52 30	Do.
440	---do----	-----do-----	47 47	52 08	Medium berg (same as No. 386).
441	---do----	-----do-----	47 50	50 55	Small berg.
442	---do----	-----do-----	47 55	50 25	Do.
443	---do----	-----do-----	47 56	51 01	Do.
444	---do----	-----do-----	47 58	50 53	Do.
445	---do----	-----do-----	47 58	52 24	Do.
446	---do----	-----do-----	48 00	49 40	Do.
447	---do----	-----do-----	48 02	52 08	Do.
448	---do----	-----do-----	48 04	50 02	Medium berg.
449	---do----	-----do-----	48 05	48 38	Small berg.
450	May 3	Ice Patrol plane-----	48 05	51 31	Small berg.
451	---do----	-----do-----	48 05	52 15	Do.
452	---do----	-----do-----	48 06	52 26	Medium berg.
453	---do----	-----do-----	48 08	50 41	Small berg.
454	---do----	-----do-----	48 08	51 19	Do.
455	---do----	-----do-----	48 12	51 14	Do.
456	---do----	-----do-----	48 16	51 55	Do.
457	---do----	-----do-----	48 17	51 11	Do.
458	---do----	-----do-----	48 19	51 28	Do.
459	---do----	-----do-----	48 27	51 50	Do.
460	---do----	-----do-----	48 34	51 52	Do.
461	---do----	-----do-----	North of a line from 47 50 | 52 10 to 47 38 | 47 50		Widely scattered strings and patches field ice and growlers.
462	---do----	Empress of Britain-----	46 53	52 10	Berg (same as No. 437).
463	---do----	TWA plane-----	47 02	52 15	Berg (same as No. 462).
464	---do----	Nebraska-----	47 19	47 46	Berg.
465	---do----	Cyrus Field-----	48 00	52 13	Berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
466	do	do	48 03	52 09	Do.
467	do	do	48 06	51 38	Do.
468	do	do	48 01	52 09	Growler.
469	do	Magdalena	48 37	52 27	2 bergs.
470	do	do	48 47	52 25	3 bergs.
471	do	USN plane	50 30	52 51	Berg.
472	do	Homeric	47 29	48 09	Growler.
473	do	do	47 33	48 04	Do.
474	do	do	47 48	47 38	2 growlers.
475	do	do	47 52	47 18	Growlers.
476	do	do	47 52	47 27	2 growlers.
477	do	Mormacrio	48 23	48 36	3 growlers.
478	May 4	Ice Patrol plane	46 57	47 55	Small berg (same as No. 464).
479	do	do	47 07	47 47	Small berg.
480	do	do	47 22	47 38	Do.
481	do	do	47 36	48 20	Do.
482	May 4	Ice Patrol plane	47 44	49 06	Small berg (same as No. 446).
483	do	do	47 57	51 32	Small berg.
484	do	do	48 00	51 38	Do.
485	do	do	48 10	52 03	Do.
486	do	Stockholm	47 32	47 52	Berg (same as No. 438).
487	do	Empress of Britain	47 54	48 15	Growler.
488	do	do	47 54	48 34	Do.
489	do	do	47 54	48 45	Do.
490	do	do	47 54	49 00	Do.
491	do	do	47 54	49 10	Do.
492	do	do	47 54	49 35	Do.
493	do	do	47 54	49 48	Do.
494	do	do	47 54	50 00	Do.
495	do	Joao Corte Real	51 40	49 55	Berg.
496	do	do	52 16	49 56	3 growlers.
497	do	Oslofjord	47 35	48 54	Growler.
498	do	do	47 40	48 36	Do.
499	May 5	Elespoint	46 39	52 56	Small berg (same as No. 462).
500	do	Arthur Cross	47 30	52 35	Berg (same as No. 439).
501	do	do	47 35	52 34	Berg (same as No. 445).
502	do	do	46 44	52 45	Large growler.
503	do	Unidentified plane	55 30	48 24	Berg.
504	do	Iseline	47 57	48 34	Growlers.
505	May 6	do	47 53	52 29	Berg.
506	do	Arthur Cross	Close in shore at North Head		2 large bergs (same as No. 500, 501).
507	do	do	Between Cape St. Francis and Cape Spear.		Several large bergs and growlers (same as No. 505).
508	do	Sgt. John E. Kelley	47 15	52 27	Berg (same as No. 440).
509	do	do	47 26	52 38	Berg (same as No. 506).
510	do	do	47 28	52 38	Berg (same as No. 506).
511	do	do	47 00	52 40	Growler.
512	do	Seven Seas	47 18	49 53	Berg (same as No. 442).
513	do	do	47 18	50 24	Berg (same as No. 441).
514	May 6	Arabia	47 34	50 21	Growler.
515	do	do	47 57	49 36	Do.
516	do	do	48 01	49 30	Do.
517	May 7	Ice Patrol plane	46 56	48 05	Berg (same as No. 478).
518	do	do	46 57	47 27	Berg (same as No. 479).
519	do	do	46 58	48 40	Berg (same as No. 481).
520	do	do	47 14	50 08	Berg (same as No. 513).
521	do	do	47 18	49 58	Berg (same as Nol 512).
522	do	do	47 18	52 32	Berg.
523	do	do	47 19	51 34	Do.
524	do	do	47 20	49 35	Do.
525	do	do	47 27	51 12	Berg (same as No. 444).
526	do	do	47 27	52 36	Berg (same as No. 509)
527	do	do	47 28	52 38	Berg (same as No. 510).
528	do	do	47 28	51 47	Berg.
529	do	do	47 30	51 53	Do.
530	do	do	47 33	52 23	Berg (same as No. 507).
531	do	do	47 34	51 31	Berg.
532	do	do	47 36	51 02	Berg (same as No. 443).
533	do	do	47 38	52 11	Berg (same as No. 507).
534	do	do	47 42	52 25	Berg (same as No. 507).
535	do	do	47 42	52 21	Berg (same as No. 507).
536	do	do	47 48	52 31	Berg (same as No. 507).
537	do	do	47 49	52 37	Berg (same as No. 507).
538	do	do	47 53	51 20	Berg.
539	do	do	47 53	52 28	Do.
540	do	do	47 55	51 55	Berg (same as No. 484).
541	do	do	47 56	52 00	Berg.
542	do	do	47 57	51 45	Berg (same as No. 483).
543	do	do	47 59	50 55	Berg.
544	do	do	48 01	51 48	Do.
545	do	do	48 08	49 22	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
546	---do----	-----do----	48 18	49 22	Do.
547	---do----	St. Laurant	46 47	47 20	Berg (same as No. 526).
548	---do----	USAF plane	47 05	51 45	Berg (same as No. 522).
549	---do----	Euskal Erria	47 20	51 27	Berg (same as No. 525).
550	May 7	Euskal Erria	47 23	51 27	Berg (same as No. 523).
551	---do----	-----do----	47 25	51 23	Berg.
552	---do----	Laholm	46 21	52 30	Growler.
553	---do----	Hubro	46 25	47 00	Do.
554	---do----	Saxonia	46 45	46 55	Do.
555	May 8	Ice Patrol plane	47 42	52 35	Berg (same as No. 536).
556	---do----	-----do----	47 48	52 43	Berg (same as No. 537).
557	---do----	-----do----	47 55	52 06	Berg (same as No. 541).
558	---do----	-----do----	48 02	48 37	Small berg.
559	---do----	-----do----	48 02	52 05	Do.
560	---do----	-----do----	48 02	52 11	Medium berg.
561	---do----	-----do----	48 03	52 38	Small berg.
562	---do----	-----do----	48 09	51 42	Do.
563	---do----	-----do----	48 13	52 20	Do.
564	---do----	-----do----	48 15	53 14	Do.
565	---do----	-----do----	48 20	49 22	Do.
566	---do----	-----do----	48 23	52 50	Do.
567	---do----	-----do----	48 26	48 40	Do.
568	---do----	-----do----	48 34	52 31	Do.
569	---do----	-----do----	48 36	52 57	Do.
570	---do----	-----do----	48 39	52 57	Do.
571	---do----	-----do----	48 02	53 01	Do.
572	---do----	-----do----	49 07	51 59	Do.
573	---do----	-----do----	49 12	53 36	Do.
574	---do----	-----do----	49 33	53 22	Do.
575	---do----	-----do----	47 43	52 41	Growler.
576	---do----	-----do----	47 46	52 37	Do.
577	---do----	-----do----	48 23	49 45	Do.
578	---do----	-----do----	48 25	50 12	Do.
579	---do----	USN vessel	46 47	47 02	Berg (same as No. 518).
580	---do----	River Afton	47 11	49 53	Berg (same as No. 520).
581	---do----	-----do----	47 19	49 45	Berg (same as No. 521).
582	---do----	-----do----	47 20	49 19	Berg (same as No. 524).
583	---do----	-----do----	47 58	48 26	Berg.
584	---do----	-----do----	47 34	49 25	Growler.
585	---do----	Sgt. Jonah E. Kelley	47 14	52 26	Berg (same as No. 522).
586	May 8	Sgt. Jonah E. Kelley	47 26	52 38	Berg (same as No. 526).
587	---do----	-----do----	47 28	52 38	Berg (same as No. 527).
588	---do----	Ringfjell	48 18	49 10	Berg.
589	---do----	Gloucester City	46 20	48 49	Growler.
590	---do----	Ramore Head	46 23	47 19	Do.
591	---do----	Colonia	46 25	47 20	Do.
592	---do----	Beaverburn	46 26	47 08	Do.
593	---do----	Reccar	46 56	47 42	Do.
594	---do----	-----do----	46 56	47 44	Do.
595	---do----	-----do----	47 04	47 16	Do.
596	May 9	Ice Patrol plane	50 25	54 28	Berg.
597	---do----	-----do----	50 36	54 55	Do.
598	---do----	-----do----	51 04	56 58	Do.
599	---do----	-----do----	51 06	57 23	Do.
600	---do----	-----do----	51 14	57 07	Do.
601	---do----	-----do----	51 18	55 08	Do.
602	---do----	-----do----	51 18	57 12	Do.
603	---do----	-----do----	Strait of Belle Isle		18 bergs.
604	---do----	-----do----	Vincity Cape Bauld		4 bergs.
605	---do----	-----do----	51 45	54 19	Berg.
606	---do----	-----do----	51 47	54 09	Do.
607	---do----	-----do----	51 48	53 49	Do.
608	---do----	-----do----	51 50	53 55	Do.
609	---do----	-----do----	51 52	54 15	Do.
610	---do----	-----do----	51 57	53 18	Do.
611	---do----	-----do----	52 00	53 00	Do.
612	---do----	-----do----	52 04	52 57	Do.
613	---do----	-----do----	52 05	53 13	Do.
614	---do----	-----do----	52 05	53 38	Do.
615	---do----	-----do----	52 06	52 49	Do.
616	---do----	-----do----	52 06	54 06	Do.
617	---do----	-----do----	52 08	52 42	Do.
618	---do----	-----do----	52 08	53 23	Do.
619	---do----	-----do----	52 08	53 27	Do.
620	---do----	-----do----	52 11	53 59	Do.
621	---do----	-----do----	52 12	53 13	Do.
622	May 9	Ice Patrol plane	52 14	54 28	Berg.
623	---do----	-----do----	52 17	54 13	Do.
624	---do----	-----do----	52 18	54 36	Do.
625	---do----	-----do----	52 19	53 06	Do.
626	---do----	-----do----	52 19	53 59	Do.

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
627	---do----	-----do------------------	52 20	55 00	Do.
628	---do----	-----do------------------	52 21	53 45	Do.
629	---do----	-----do------------------	52 22	52 43	Do.
630	---do----	-----do------------------	52 23	54 32	Do.
631	---do----	-----do------------------	52 24	52 59	Do.
632	---do----	-----do------------------	52 25	53 43	4 bergs.
633	---do----	-----do------------------	52 27	53 27	Berg.
634	---do----	-----do------------------	52 27	54 12	Do.
635	---do----	-----do------------------	52 29	53 21	Do.
636	---do----	-----do------------------	52 30	53 41	Do.
637	---do----	-----do------------------	52 32	52 47	Do.
638	---do----	-----do------------------	52 32	54 37	Do.
639	---do----	-----do------------------	52 33	53 27	Do.
640	---do----	-----do------------------	52 43	53 00	Do.
641	---do----	-----do------------------	52 50	52 52	Do.
642	---do----	-----do------------------	North and west of a line from 50 12 to 50 20 to 51 30 to 51 55 to 52 10 to 52 52	55 20 to 54 20 to 5 40 to 54 00 to 53 50 to 52 33	Scattered to close pack field ice.
643	---do----	Rathlin Head-------------	46 17	47 35	Berg (same as No. 517).
644	---do----	Empress of Scotland-------	46 49	47 50	Berg (same as No. 519).
645	May 9	Empress of Scotland-------	47 05	47 21	Growler.
646	---do----	Rigoletto-----------------	46 00	47 55	Do.
647	---do----	Manchester Vanguard------	47 34	49 15	Do.
648	---do----	Dixie---------------------	48 54	51 02	Several growlers.
649	May 10	Ice Patrol plane----------	45 57	48 07	Berg (same as No. 643).
650	---do----	-----do------------------	46 40	47 41	Berg (same as No. 644).
651	---do----	-----do------------------	46 54	52 37	Berg (same as No. 585).
652	---do----	-----do------------------	46 55	49 43	Berg (same as No. 580).
653	---do----	-----do------------------	46 57	49 05	Berg (same as No. 582).
654	---do----	-----do------------------	47 07	49 22	Berg (same as No. 581).
655	---do----	-----do------------------	47 08	51 32	Berg (same as No. 523).
656	---do----	-----do------------------	47 09	50 57	Berg (same as No. 525).
657	---do----	-----do------------------	47 12	51 15	Berg (same as No. 550).
658	---do----	-----do------------------	47 12	52 50	Berg (same as No. 534).
659	---do----	-----do------------------	47 13	52 45	Berg (same as No. 530).
660	---do----	-----do------------------	47 17	50 42	Berg (same as No. 532).
661	---do----	-----do------------------	47 17	52 39	Berg (same as No. 533).
662	---do----	-----do------------------	Motion Bay		2 bergs (same as Nos. 586, 587).
663	---do----	-----do------------------	47 29	52 29	Berg (same as No. 535).
664	---do----	-----do------------------	47 41	52 03	Berg (same as No. 557).
665	---do----	-----do------------------	47 41	52 28	Berg (same as No. 555).
666	---do----	-----do------------------	47 45	52 42	Berg (same as No. 556).
667	---do----	-----do------------------	47 50	52 20	Berg (same as No. 539).
668	---do----	-----do------------------	46 08	47 02	Growler.
669	---do----	-----do------------------	46 52	47 27	Do.
670	---do----	-----do------------------	46 57	48 03	Do.
671	---do----	-----do------------------	47 04	51 10	Do.
672	---do----	-----do------------------	47 10	52 38	Do.
673	---do----	-----do------------------	47 15	50 25	Do.
674	---do----	Porjus--------------------	45 46	48 02	Berg (same as No. 649).
675	---do----	Corinaldo-----------------	45 52	47 48	Berg (same as No. 674).
676	---do----	Maplecove-----------------	46 36	47 36	Berg (same as No. 650).
677	---do----	Nova Scotia---------------	46 54	52 28	Berg (same as No. 651).
678	---do----	-----do------------------	47 18	52 40	Berg (same as No. 661).
679	May 10	Nova Scotia---------------	47 29	52 27	Berg (same as No. 663).
680	---do----	-----do------------------	Motion Bay		2 bergs (same as Nos. 586, 587).
681	---do----	-----do------------------	Between Cape Broyle and Great Island.		2 bergs (same as Nos. 658, 659).
682	---do----	-----do------------------	47 05	52 40	Growler.
683	---do----	Caxton--------------------	47 02	51 07	Berg (same as No. 656).
684	---do----	Arosa Star----------------	47 12	50 53	Berg (same as No. 683).
685	---do----	MATS plane----------------	47 40	47 55	Berg (same as No. 583).
686	---do----	-----do------------------	47 48	48 15	Berg.
687	---do----	Chepman-------------------	47 35	48 00	Berg (same as No. 685).
688	---do----	BOAC plane----------------	50 45	51 31	Berg.
689	---do----	PAA plane-----------------	51 03	52 21	Do.
690	May 11	Manchester Vanguard------	46 57	52 34	Berg (same as No. 677).
691	---do----	Arthur Cross--------------	47 21	52 39	Berg (same as No. 678).
692	---do----	-----do------------------	47 26	52 38	Berg (same as No. 662).
693	---do----	-----do------------------	47 28	52 38	Do.
694	---do----	-----do------------------	47 37	52 36	Berg (same as No. 665).
695	---do----	-----do------------------	47 42	52 36	Berg (same as No. 679).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
696	---do-----	-----do	47 42	52 41	Berg (same as No. 666).
697	---do-----	BOAC plane	49 18	53 19	Berg.
698	---do-----	-----do	49 18	53 21	Do.
699	---do-----	Canadian Dept. of Transport.	Off Point Riche, Strait of Belle Isle.		Small field loose drift ice.
700	---do-----	-----do	Line from Cape Norman to Belle Isle to Double Island.		Inside limits field ice.
701	---do-----	-----do	Line from 50 45 to 50 40 to 53 00	55 30 to 54 00 to 54 40	Offshore limits field ice.
702	May 12	Lyngenfjord	45 25	48 12	Berg (same as No. 674).
703	---do-----	Belray	45 15	48 25	Berg (same as No. 702).
704	---do-----	Scythia	46 16	46 56	Berg (same as No. 676).
705	---do-----	Bauccaneer	46 20	47 00	Berg (same as No. 704).
706	May 12	Prodromos	46 16	46 58	Berg (same as No. 705).
707	---do-----	New York	46 24	46 59	Berg (same as No. 706).
708	---do-----	Falkanger	46 35	47 20	Berg (same as No. 707).
709	---do-----	Oslofjord	46 25	47 08	Berg (same as No. 708).
710	---do-----	Lismoria	47 25	50 22	Berg (same as No. 660).
711	---do-----	-----do	47 38	50 11	Berg (same as No. 543).
712	---do-----	-----do	48 10	49 03	Berg.
713	---do-----	USAF plane	47 40	47 05	Berg (same as No. 687).
714	---do-----	-----do	48 15	49 15	Berg.
715	---do-----	Thistlemuir	47 14	49 00	Berg (same as No. 654).
716	---do-----	Nova Scotia	48 31	46 42	Berg and 6 growlers.
717	---do-----	-----do	47 33	52 39	Bergy bit.
718	---do-----	TWA plane	48 50	49 25	Berg.
719	---do-----	SAS plane	49 10	53 25	Do.
720	---do-----	-----do	49 18	52 53	4 bergs.
721	May 13	Avon Wood	47 12	52 39	Berg (same as No. 682).
722	---do-----	USCGC Barataria	47 22	51 07	Berg (same as No. 528).
723	---do-----	-----do	47 42	50 00	Growler.
724	---do-----	-----do	48 04	50 44	Do.
725	---do-----	Saxonia	47 20	51 07	Berg (same as No. 722).
726	---do-----	-----do	47 34	50 09	Berg (same as No. 711).
727	---do-----	-----do	47 39	50 24	Berg (same as No. 551).
728	---do-----	Margareta	47 38	50 25	Berg (same as No. 727).
729	---do-----	-----do	47 50	49 56	Berg (same as No. 538).
730	---do-----	Rembrandt	47 30	47 15	Berg (same as Nol 713).
731	---do-----	Unidentified plane	48 10	46 05	Berg.
732	---do-----	Adriana	48 41	46 10	Do.
733	May 14	Charles A. Wickliffe	45 37	47 36	Radar target, possible berg.
734	---do-----	Godafoss	47 02	52 35	Berg (same as No. 721).
735	---do-----	USN plane	51 20	50 33	Berg.
736	---do-----	-----do	51 54	47 18	Do.
737	---do-----	-----do	51 56	48 09	Do.
738	---do-----	-----do	52 10	52 09	Bergy bits.
739	May 15	Tremayne	48 24	50 27	Berg.
740	---do-----	-----do	48 30	50 22	Growler.
741	May 16	Ice Patrol plane	45 40	47 55	Small berg (same as No. 703).
742	---do-----	-----do	46 44	52 51	Small berg (same as No. 690).
743	---do-----	-----do	46 56	52 50	Small berg (same as No. 734).
744	---do-----	-----do	47 06	52 52	Small berg (same as No. 681).
745	---do-----	-----do	47 09	52 46	Small berg (same as No. 691).
746	---do-----	-----do	47 27	52 38	Small berg (same as No. 692).
747	---do-----	-----do	47 29	52 38	Small berg (same as No. 693).
748	---do-----	-----do	47 31	51 27	Small berg (same as No. 664).
749	---do-----	-----do	47 42	52 33	Small berg (same as No. 695).
750	---do-----	-----do	47 42	52 36	Small berg (same as No. 696).
751	---do-----	-----do	47 43	52 42	Small berg (same as No. 694).
752	---do-----	-----do	47 48	51 39	Small berg.
753	---do-----	-----do	47 51	51 50	Do.
754	---do-----	-----do	47 52	52 20	Small berg (same as No. 667).
755	---do-----	-----do	47 54	52 11	Small berg.
756	---do-----	-----do	48 02	52 00	Do.
757	---do-----	-----do	48 07	48 21	Medium berg.
758	---do-----	-----do	48 27	50 41	Small berg.
759	---do-----	-----do	48 27	52 15	Do.
760	---do-----	-----do	48 32	52 54	Do.
761	---do-----	-----do	47 01	52 52	Growler.
762	---do-----	MATS plane	45 15	48 00	Berg (same as No. 741).
763	---do-----	Hermiston	45 41	47 45	Berg (same as No. 762).
764	---do-----	Soya Atlantic	46 48	52 41	Berg (same as No. 742).
765	---do-----	-----do	46 53	52 49	Berg (same as No. 743).
766	---do-----	Arthur Cross	46 53	52 48	Berg (same as No. 765).
767	---do-----	-----do	Offshore at Ferryland Head		Berg (same as No. 744).
768	---do-----	-----do	From Bear Cove to Cape Ballard.		Several growlers.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
769	---do-----	Prins Willem II	46 50	48 10	Berg (same as No. 715).
770	---do-----	USCGC Duane	15 miles east of Cape Ballard		Berg (same as No. 690).
771	---do-----	-----do	10 miles east of Cape Ballard		Berg (same as No. 651).
772	---do-----	Unidentified plane	49 18	52 52	Berg.
773	May 16	Unidentified plane	49 10	53 25	Berg.
774	---do-----	-----do	49 27	53 21	Do.
775	---do-----	KLM plane	Vicinity		Do.
			49 20	53 30	8 bergs.
776	---do-----	Swiss Airlines plane	49 29	52 42	Berg.
777	---do-----	Canadian Dept. of Transport.	Cape Bauld to Chateau Bay		Western limit field ice.
778	---do-----	-----do	Strait of Belle Isle		Clear except for scattered bergs.
779	---do-----	-----do	From 53 00	54 15	Eastern limit field ice.
			to 50 20	54 20	
780	May 17	Sun Karen	46 42	52 45	Berg and growler (same as No. 764)
781	---do-----	-----do	47 33	51 28	Berg (same as No. 748).
782	---do-----	Traviata	47 40	48 37	Berg.
783	---do-----	Arosa Sun	47 43	47 25	Berg (same as No. 686).
784	---do-----	Arosa Star	48 07	45 19	Berg.
785	---do-----	Unidentified plane	From 50 53	52 21	25 bergs.
			to 52 15	50 25	
786	---do-----	Soya Atlantic	47 47	52 39	2 growlers.
787	---do-----	-----do	47 55	52 44	Growler.
788	May 18	Dabrodin	46 51	52 49	Berg (same as No. 766).
789	---do-----	Newfoundland	46 51	52 50	Berg (same as No. 788).
790	---do-----	Alfred Theodor	48 02	50 24	Berg
791	---do-----	Unidentified vessel	48 07	47 06	Do.
792	---do-----	Calgaria	48 13	47 55	2 bergs.
793	---do-----	Acamellia	48 15	47 24	Radar target, probable berg.
794	---do-----	-----do	48 28	46 19	Do.
795	---do-----	Sommen	48 50	46 20	Berg.
796	---do-----	TWA plane	49 37	50 55	Do.
797	May 19	Ice Patrol plane	46 37	52 37	Small berg (same as No. 780).
798	---do-----	-----do	46 48	52 47	Small berg (same as No. 789).
799	May 19	Ice Patrol plane	47 04	52 50	Small berg (same as No. 744).
800	---do-----	-----do	47 39	51 40	Small berg (same as No. 752).
801	---do-----	USCGC Westwind	46 49	52 43	Berg (same as No. 798).
802	---do-----	-----do	47 03	52 51	Berg (same as No. 799).
803	---do-----	-----do	47 27	52 38	2 bergs (same as Nos. 746, 747).
804	---do-----	-----do	47 45	52 41	Berg (same as No. 750).
805	---do-----	-----do	47 49	52 42	Berg (same as No. 751).
806	---do-----	-----do	47 52	52 11	Berg (same as No. 755).
807	---do-----	-----do	48 04	52 10	Berg.
808	---do-----	-----do	48 24	52 42	Do.
809	---do-----	-----do	48 30	52 35	Do.
810	---do-----	Torsholm	46 33	52 31	Berg (same as No. 797).
811	---do-----	Fort Avalon	46 50	52 47	Berg (same as No. 801).
812	---do-----	-----do	47 26	52 39	Berg (same as No. 803).
813	---do-----	-----do	47 27	52 39	Berg (same as No. 803).
814	---do-----	Mormacyork	47 57	51 59	Berg (same as No. 753).
815	---do-----	-----do	47 21	52 12	3 growlers.
816	---do-----	Stad Vlaardingen	48 13	50 23	Berg.
817	---do-----	-----do	48 15	50 41	Do.
818	---do-----	Stavangerfjord	48 03	45 30	Do.
819	---do-----	USCGC Chincoteague	49 12	45 29	Do.
820	---do-----	Scandinavian plane	49 40	53 30	2 bergs.
821	---do-----	June Crest	48 13	50 10	2 growlers.
822	May 20	Beaverford	46 34	52 31	Berg (same as No. 810).
823	---do-----	-----do	46 46	52 46	Berg (same as No. 811).
824	---do-----	-----do	46 42	52 22	Growler.
825	---do-----	Stavangerfjord	46 33	52 33	Berg (same as No. 822).
826	---do-----	-----do	46 40	52 43	Berg (same as No. 823).
827	---do-----	Arabia	46 29	52 33	Berg (same as No. 825).
828	---do-----	-----do	46 40	52 43	Berg (same as No. 826).
829	---do-----	-----do	46 45	52 24	Growler.
830	---do-----	Neptunia	46 37	52 35	Berg (same as No. 828).
831	---do-----	Baron Cawdor	47 51	52 41	Berg (same as No. 787).
832	---do-----	-----do	48 03	51 58	Berg.
833	---do-----	-----do	48 07	52 05	Do.
834	---do-----	Stad Vlaardingen	47 54	52 42	Berg (same as No. 831).
835	---do-----	-----do	48 05	51 56	Berg.
836	May 20	USS Randall	48 42	43 42	Radar contacts, probable bergs.
837	---do-----	Tarpenbek	50 09	52 09	Berg.
838	---do-----	Unidentified plane	51 46	51 28	Do.
839	May 21	Nordland	46 40	52 22	Berg (same as No. 827).
840	---do-----	-----do	46 41	52 27	Berg (same as No. 830).
841	---do-----	Alfred Theodor	48 07	51 57	2 bergs.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
842	---do----	-----do	48	20	52	18	Berg.
843	---do----	Helsingfors	48	23	49	57	2 bergs.
844	---do----	-----do	48	53	49	03	Growler.
845	---do----	Tarpenbek	49	48	52	51	Berg.
846	May 22	Ice Patrol plane	47	18	52	46	Berg (same as No. 744).
847	---do----	-----do	47	28	46	46	Medium berg (same as No. 757).
848	---do----	-----do	47	28	52	37	Berg (same as No. 803).
849	---do----	-----do	47	28	52	39	Berg (same as No. 803).
850	---do----	-----do	47	36	51	32	Berg (same as No. 800).
851	---do----	-----do	47	53	52	03	Berg (same as No. 805).
852	---do----	-----do	47	55	52	29	Berg (same as No. 754).
853	---do----	-----do	47	56	51	25	Berg (same as No. 753).
854	---do----	-----do	47	59	52	33	Berg (same as No. 831).
855	---do----	-----do	48	04	50	06	Berg.
856	---do----	-----do	48	06	51	55	Do.
857	---do----	-----do	47	37	47	11	Growler.
858	---do----	New York	46	33	52	30	Berg (same as No. 839).
859	---do----	-----do	46	36	52	28	Berg (same as No. 840).
860	---do----	Dunadd	46	36	52	30	Berg (same as No. 858).
861	---do----	-----do	46	38	52	27	Berg (same as No. 859).
862	---do----	John W. Mackay	46	37	52	27	Berg (same as No. 861).
863	---do----	-----do	1 mile north of Ferryland Head				Berg (same as No. 802).
864	---do----	Eabeth	48	17	50	06	2 bergs.
865	---do----	Canadian Dept. of Transport.	A line from Groais Island to 40 miles NE of Belle Isle to 5 miles from Cape St. Lewis to 15 miles offshore at Cape St. Michael.				Inshore limits field ice.
866	May 22	Canadian Dept. of Transport.	A line from 52	10	to 53	50	Offshore limits field ice.
			51	20	to 53	10	
			50	25	54	20	
			to Groas Island.				
867	May 23	Ice Patrol plane	47	26	46	51	Berg (same as No. 847).
868	---do----	-----do	47	35	44	39	Berg (same as No. 707).
869	---do----	-----do	47	47	52	27	Berg (same as No. 852).
870	---do----	-----do	47	54	51	58	Berg (same as No. 851).
871	---do----	-----do	47	57	52	27	Berg (same as No. 854).
872	---do----	-----do	47	59	51	08	Berg (same as No. 853).
873	---do----	-----do	48	06	51	57	Berg.
874	---do----	-----do	48	12	51	38	Do.
875	---do----	-----do	48	14	52	11	Do.
876	---do----	-----do	48	16	51	57	Do.
877	---do----	-----do	48	34	50	09	Do.
878	---do----	-----do	48	53	44	15	Do.
879	---do----	-----do	47	38	46	59	Growler.
880	---do----	-----do	48	53	44	12	Do.
881	---do----	Euskal-Erria	48	20	50	00	Berg.
882	---do----	-----do	48	26	50	00	Do.
883	---do----	Zinnia	48	20	51	47	Do.
884	---do----	-----do	48	24	52	05	Do.
885	---do----	Empress of France	48	21	48	13	Do.
886	---do----	Unidentified vessel	48	53	44	23	2 bergs.
887	May 24	John W. Mackay	46	46	52	12	Berg (same as No. 862).
888	---do----	Ungava	48	38	52	59	Berg.
889	---do----	Beaverlake	48	47	44	22	Do.
890	May 25	-----do	46	55	52	37	Berg (same as No. 860).
891	---do----	Zinnia	48	11	52	23	Berg.
892	---do----	Greece Victory	48	21	51	02	Do.
893	---do----	-----do	48	50	51	24	Do.
894	May 25	Iselin	48	26	51	05	Berg.
895	---do----	Unidentified plane	49	37	51	25	2 bergs.
896	May 26	Ice Patrol plane	47	00	52	35	Berg (same as No. 890).
897	---do----	-----do	47	05	46	43	Berg (same as No. 867).
898	---do----	-----do	47	07	52	17	Berg (same as No. 887).
899	---do----	-----do	47	20	52	43	Berg (same as No. 849).
900	---do----	-----do	47	21	52	42	Berg (same as No. 848).
901	---do----	-----do	47	47	51	38	Berg (same as No. 850).
902	---do----	-----do	48	06	52	07	Berg.
903	---do----	-----do	48	13	51	23	Do.
904	---do----	-----do	48	22	51	06	Do.
905	---do----	-----do	47	17	52	47	Growler.
906	---do----	-----do	47	43	52	13	Do.
907	---do----	Kungsholm	45	17	48	59	Berg (same as No. 741).
908	---do----	Cassia	45	15	49	00	Berg (same as No. 907).
909	---do----	Casa Grande	47	02	52	26	Berg (same as No. 898).
910	---do----	-----do	47	02	52	46	Berg (same as No. 896).
911	---do----	Makefjell	47	02	52	30	Berg (same as No. 910).
912	---do----	-----do	47	10	52	13	Berg (same as No. 909).

No.	Date	Name of vessel	North latitude (° ′)	West longitude (° ′)	Description
913	---do ----	Ungava	48 31	52 44	Berg.
914	---do ----	Redcar	48 38	49 49	Do.
915	---do ----	Borgholm	49 11	43 44	Do.
916	---do ----	Greece Victory	49 49	51 14	2 bergs.
917	---do ----	-----do	53 08	51 02	Berg.
918	---do ----	-----do	51 35	51 00	Do.
919	---do ----	-----do	51 40	51 09	2 bergs.
920	---do ----	Tremayne	50 23	52 55	Berg.
921	---do ----	-----do	50 28	52 36	Do.
922	---do ----	-----do	50 38	52 18	Do.
923	---do ----	-----do	50 39	52 16	Do.
924	---do ----	-----do	50 35	51 20	Do.
925	---do ----	Unidentified plane	50 45	52 12	Ice floe, 400 x 4000 ft.
926	May 27	Ice Patrol plane	47 26	52 37	Berg (same as No. 899).
927	---do ----	-----do	47 28	52 39	Berg (same as No. 900).
928	---do ----	-----do	47 56	51 23	Berg.
929	---do ----	-----do	48 07	51 53	Do.
930	---do ----	-----do	47 55	51 58	Growler.
931	---do ----	Sgt. Johan E. Kelley	47 01	52 51	Berg (same as No. 863).
932	---do ----	-----do	47 05	52 33	Berg (same as No. 911).
933	---do ----	USNS Marine Carp	47 03	52 28	Berg (same as No. 932).
934	---do ----	-----do	47 09	521 12	Berg (same as No. 912).
935	---do ----	-----do	48 12	52 06	Berg.
936	---do ----	-----do	48 41	51 55	Do.
937	---do ----	Silvretta	47 04	52 15	Berg (same as No. 934).
938	---do ----	Saxonia	47 11	52 18	Berg (same as No. 937).
939	---do ----	-----do	48 24	48 33	Berg.
940	---do ----	Casa Grande	47 15	52 26	Bergy bit.
941	---do ----	-----do	48 27	52 32	Do.
942	---do ----	-----do	49 48	52 45	Do.
943	---do ----	-----do	50 22	52 36	Do.
944	---do ----	-----do	50 34	52 46	Do.
945	---do ----	-----do	50 35	52 41	Do.
946	---do ----	-----do	51 09	52 50	Ice field boundary.
			to 51 20	to 52 48	
947	---do ----	-----do	52 11	52 36	Scattered pack ice.
948	---do ----	Hastedt	48 33	51 23	Berg.
949	---do ----	Ungava	48 56	53 02	Do.
950	May 28	Ice Patrol plane	44 58	49 22	Berg (same as No. 908).
951	---do ----	-----do	47 09	46 44	Berg (same as No. 897).
952	---do ----	-----do	47 49	51 37	Berg (same as No. 928).
953	---do ----	-----do	48 05	51 59	Berg.
954	---do ----	-----do	48 09	48 15	Do.
955	---do ----	-----do	48 17	50 53	Do.
956	---do ----	-----do	48 34	51 16	Do.
957	---do ----	-----do	48 38	52 15	Do.
958	May 28	Ice Patrol plane	48 41	51 03	Berg.
959	---do ----	-----do	48 52	51 15	Do.
960	---do ----	Arthur Cross	47 01	52 35	Berg (same as No. 933).
961	---do ----	Newfoundland	47 03	52 34	Berg (same as No. 960).
962	---do ----	Stavangerfjord	47 14	52 15	Berg (same as No. 938).
963	---do ----	Iselin	48 22	51 14	Berg.
964	---do ----	Andria	42 49	50 21	Several growlers.
965	---do ----	Casa Grande	53 00	52 57	Scattered pack ice.
966	---do ----	-----do	53 27	52 90	Do.
967	May 29	Atlantic Viscount	47 02	52 34	Radar target, probable berg.
968	---do ----	Re·lcar	48 30	51 23	Berg.
969	---do ----	-----do	48 49	50 17	Do.
970	---do ----	-----do	48 35	50 58	Growlers.
971	May 30	Unidentified vessel	46 52	52 45	Berg (same as No. 961).
972	---do ----	Sgt. Jonah E. Kelley	47 25	52 39	Berg (same as No. 926).
973	---do ----	-----do	47 27	52 38	Berg (same as No. 927).
974	---do ----	Sunmont	48 26	46 56	Berg.
975	---do ----	Hydro	50 35	55 30	Numerous bergs.
976	---do ----	-----do	50 55	55 25	3 bergs.
977	---do ----	-----do	51 35	55 20	2 bergs.
978	---do ----	KLM plane	51 50	50 40	Berg.
979	May 31	Ice Patrol plane	46 43	52 44	Berg (same as No. 971).
980	---do ----	Scythia	46 38	52 39	Berg (same as No. 979).
981	---do ----	-----do	46 42	52 34	Growler.
982	---do ----	Fidentia	46 39	52 39	Berg (same as No. 980).
983	---do ----	-----do	Off Ferryland Head		Berg (same as No. 931).
984	---do ----	Nova Scotia	47 01	52 51	Berg (same as No. 983).
985	---do ----	-----do	47 07	52 51	Berg (same as No. 910).
986	---do ----	-----do	47 16	52 46	Berg (same as No. 899).
987	---do ----	-----do	47 25	52 38	Berg (same as No. 972).
988	---do ----	-----do	47 28	52 39	Berg (same as No. 973).
989	---do ----	Sgt. Jonah E. Kelley	47 03	52 51	Berg (same as No. 984).
990	May 31	Sgt. Jonah E. Kelley	47 17	52 46	Berg (same as No. 986).
991	---do ----	Stad Breda	48 17	51 31	Berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
992	---do-----	-----do-----------------	48 23	51 44	Do.
993	---do-----	-----do-----------------	48 26	51 35	Berg and 2 growlers.
994	---do-----	-----do-----------------	48 28	51 25	Berg.
995	---do-----	Mapledell---------------	48 27	46 16	Do.
996	---do-----	Classic-----------------	48 33	44 31	Radar target, probable berg.
997	---do-----	USCGC Coos Bay----------	48 07	49 52	3 growlers.
998	---do-----	Ungava------------------	49 34	55 29	2 growlers.
999	---do-----	Hydro-------------------	From 50 05 to 50 20 to 52 00 to 53 25 to 53 55	54 50 54 00 54 30 64 45 55 25	Eastern limits field ice.
1000	---do-----	-----do-----------------	From 50 05 to 50 33 to 50 20 to 52 00 to 52 25 to 53 15 to 53 50	54 50 55 35 54 50 54 54 55 37 55 15 55 50	Western limits field ice.
1001	June 1	Seven Seas--------------	46 37	52 44	Berg (same as No. 979).
1002	---do-----	Empress of France-------	46 40	52 38	Radar target, probable berg.
1003	---do-----	-----do-----------------	47 01	52 20	Do.
1004	---do-----	Schwanheim--------------	48 00	51 00	Berg.
1005	---do-----	Hedja-------------------	50 32	52 42	Do.
1006	---do-----	-----do-----------------	50 22	53 17	Belt of heavy field ice.
1007	June 2	Atlantic Vicount--------	47 37	52 20	Berg.
1008	---do-----	-----do-----------------	47 57	52 27	Do.
1009	---do-----	-----do-----------------	47 59	52 35	Do.
1010	---do-----	-----do-----------------	49 36	52 35	Do.
1011	---do-----	-----do-----------------	49 41	54 52	Do.
1012	---do-----	-----do-----------------	49 43	54 06	Do.
1013	---do-----	-----do-----------------	49 44	53 14	Do.
1014	---do-----	-----do-----------------	49 47	53 27	Do.
1015	---do-----	-----do-----------------	49 48	53 06	Do.
1016	---do-----	-----do-----------------	50 02	53 53	Do.
1017	---do-----	Francisca Sartori-------	48 20	44 00	Do.
1018	---do-----	Schwanheim--------------	48 23	51 02	Do.
1019	---do-----	Stad Arnhem-------------	48 41	51 18	Do.
1020	---do-----	-----do-----------------	48 44	51 11	Do.
1021	---do-----	-----do-----------------	48 49	50 38	Do.
1022	---do-----	-----do-----------------	48 20	51 27	2 growlers.
1023	---do-----	USCGC Mackinac----------	48 46	50 44	Berg.
1024	---do-----	-----do-----------------	49 12	50 12	2 bergs and 3 growlers.
1025	---do-----	TWA plane---------------	49 22	52 48	Berg.
1026	June 3	Avon Venturer-----------	46 38	52 40	Berg (same as No. 962).
1027	---do-----	Beaverlodge-------------	46 49	52 33	Berg (same as No. 1001).
1028	---do-----	Nordsee-----------------	52 24	51 07	4 bergs.
1029	June 4	Suorva------------------	46 49	52 26	Berg (same as No. 1027).
1030	---do-----	-----do-----------------	47 32	51 31	Berg (same as No. 952).
1031	---do-----	-----do-----------------	47 45	52 37	Berg.
1032	---do-----	-----do-----------------	48 00	51 28	Do.
1033	---do-----	-----do-----------------	48 01	51 24	Do.
1034	---do-----	-----do-----------------	48 02	51 22	Do.
1035	---do-----	-----do-----------------	48 51	50 16	Do.
1036	---do-----	-----do-----------------	48 54	50 53	Do.
1037	June 4	Suorva------------------	48 55	50 46	Berg.
1038	---do-----	-----do-----------------	49 17	49 54	Do.
1039	---do-----	-----do-----------------	49 27	49 46	Do.
1040	---do-----	TWA plane---------------	47 35	49 00	2 bergs.
1041	---do-----	Columbia----------------	47 41	48 33	Berg (same as No. 1040).
1042	---do-----	-----do-----------------	47 46	48 34	Do.
1043	---do-----	Manchester Merchant-----	47 46	48 44	Berg (same as No. 1041).
1044	---do-----	-----do-----------------	47 51	48 41	Growler.
1045	---do-----	-----do-----------------	47 52	48 36	Do.
1046	---do-----	KIM plane---------------	50 50	50 35	2 bergs.
1047	---do-----	-----do-----------------	51 20	49 50	Berg.
1048	---do-----	Caxton------------------	46 42	44 25	Growler.

No.	Date	Name of vessel	North latitude ° '	West longitude ° '	Description
1049	--do----	Hydro	From 51 05 to 52 00 to 52 15 to 52 05 to 52 25 to 52 30 to 53 35 to 55 42 to 53 50 to 54 00 to 54 10 to 54 20 to 54 20	 54 00 54 30 54 14 54 45 54 55 54 25 55 20 56 00 56 10 56 55 57 15 57 10 57 20 to east tip Cut Throat Island.	Western boundary field ice.
1050	June 5	Billetal	46 53	52 28	Berg (same as No. 1029).
1051	---do ----	-----do	46 49	52 10	Growler.
1052	---do ----	Jan	46 54	51 27	Berg.
1053	---do ----	-----do	47 56	51 26	Do.
1054	---do ----	Honduras	48 04	52 23	Do.
1055	---do ----	-----do	49 32	52 56	Do.
1056	---do ----	-----do	49 46	53 01	Berg and growler.
1057	---do ----	-----do	49 32	53 02	Growler.
1058	June 6	Irish Cedar	47 46	47 57	Berg.
1059	---do ----	Prins Willem	47 52	47 58	Berg (same as No. 1058).
1060	June 7	Ice Patrol plane	46 57	52 52	Berg (same as No. 983).
1061	---do ----	-----do	47 00	52 12	Berg (same as No. 1026).
1062	---do ----	-----do	47 07	52 52	Berg (same as No. 985).
1063	---do ----	-----do	47 17	52 49	Berg (same as No. 986).
1064	---do ----	-----do	47 27	52 40	Berg (same as No. 987).
1065	---do ----	-----do	47 30	52 40	Berg (same as No. 988).
1066	---do ----	Euskal Erria	47 11	52 14	Berg (same as No. 1061).
1067	---do ----	Birmingham City	47 53	47 47	Berg (same as No. 1059).
1068	---do ----	-----do	47 55	47 30	Berg (same as No. 1042).
1069	---do ----	Manchester Spinner	48 05	47 24	Berg.
1070	---do ----	Consuelo	48 39	48 49	Do.
1071	---do ----	-----do	48 45	48 52	Do.
1072	June 8	Ice Patrol plane	47 12	52 28	Berg (same as No. 1007).
1073	---do ----	-----do	47 27	52 39	Berg (same as No. 1064).
1074	---do ----	-----do	47 28	52 39	Berg (same as No. 1065).
1075	---do ----	-----do	47 34	51 35	Berg (same as No 1030).
1076	---do ----	-----do	47 46	51 36	Berg (same as No. 1052).
1077	---do ----	-----do	47 54	51 14	Berg (same as No. 1053).
1078	---do ----	-----do	47 57	47 25	Berg (same as No. 1067).
1079	---do ----	-----do	47 57	52 00	Berg (same as No. 1008).
1080	---do ----	-----do	47 58	47 08	Berg (same as No. 1068).
1081	June 8	Ice Patrol plane	48 12	51 43	Berg.
1082	---do ----	-----do	48 21	49 55	Do.
1083	---do ----	-----do	47 57	47 23	Growler.
1084	---do ----	Cairndhu	46 36	52 55	Berg (same as No. 1050).
1085	---do ----	L'Aventure	47 12	52 19	Berg (same as No. 1066).
1086	---do ----	Seven Seas	47 55	46 52	2 bergs (same as Nos. 1078, 1080).
1087	---do ----	Beverlake	47 58	47 24	Radar target, probable berg.
1088	---do ----	Ingrid Weide	Vicinity of 51 50	 54 10	A few bergs and icefields.
1089	---do ----	-----do	Vicinity of 51 34	 55 15	Bergs, growlers, field ice.
1090	---do ----	-----do	51 35	56 10	Berg and growler.
1091	June 9	Ice Patrol plane	46 57	52 55	Berg (same as No. 1060).
1092	---do ----	-----do	47 08	52 52	Berg (same as No. 1062).
1093	---do ----	-----do	47 10	52 34	Berg (same as No. 1085).
1094	---do ----	-----do	47 20	51 32	Berg (same as No. 1075).
1095	---do ----	-----do	47 38	46 54	Berg (same as No. 1086).
1096	---do ----	-----do	47 39	51 26	Berg (same as No. 1076).
1097	---do ----	-----do	47 42	47 11	Berg (same as No. 1086).
1098	---do ----	-----do	47 42	51 00	Berg.
1099	---do ----	-----do	47 51	48 58	Do.
1100	---do----	-----do	47 52	52 02	Berg (same as No. 1041).
1101	---do ----	-----do	47 59	49 34	Berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1102	---do----	Scythia	47 41	46 52	Berg (same as No. 1095).
1103	---do----	-----do	47 46	47 09	Berg (same as No. 1097).
1104	---do----	Mary P.	47 55	50 50	Berg (same as No. 1077).
1105	---do----	-----do	47 57	49 07	Berg (same as No. 1099).
1106	---do----	-----do	47 58	49 37	Berg.
1107	---do----	Rathlin Head	48 09	49 05	Do.
1108	---do----	-----do	48 16	48 33	Do.
1109	---do----	TWA plane	50 00	50 20	Do.
1110	---do----	Allan Villiers	50 54	50 59	Do.
1111	---do----	-----do	50 59	51 04	Do.
1112	---do----	-----do	51 00	51 02	Do.
1113	---do----	Arabia	North of lat. 51N. and between longs. 53W. and 54W.		Heavy field ice with many bergs and growlers.
1114	June 9	Swiss Airlines plane	52 00	51 30	5 bergs.
1115	---do----	KLM plane	55 18	56 20	Berg.
1116	June 10	Ice Patrol plane	47 17	46 26	Berg (same as No. 1102).
1117	---do----	-----do	47 17	46 35	Berg (same as No. 1103).
1118	---do----	-----do	47 32	50 27	Berg (same as No. 1098).
1119	---do----	-----do	47 42	48 40	Berg.
1120	---do----	-----do	47 43	51 59	Berg (same as No. 1100).
1121	---do----	-----do	47 44	48 05	Berg.
1122	---do----	-----do	47 45	47 29	Do.
1123	---do----	-----do	47 57	48 37	Do.
1124	---do----	-----do	47 59	49 07	Berg (same as No. 1101).
1125	---do----	-----do	48 17	48 18	Berg.
1126	---do----	-----do	48 20	51 27	Do.
1127	---do----	-----do	48 16	50 23	Growler.
1128	---do----	Ivernia	47 10	51 35	Berg (same as No. 1094).
1129	---do----	-----do	47 53	49 19	Berg (same as No. 1124).
1130	---do----	-----do	46 47	52 54	Growler.
1131	---do----	-----do	47 27	51 29	Do.
1132	---do----	Manchester Mariner	47 17	51 34	Radar target, probable berg.
1133	---do----	-----do	47 54	49 23	Berg (same as No. 1129).
1134	---do----	Honduras	Off Cape Spear		Berg (same as No. 1073).
1135	---do----	-----do	Motion Bay		Berg (same as No. 1074).
1136	---do----	-----do	Notre Dame Bay to Funk Island.		Several bergs and growlers.
1137	---do----	Beaverford	47 52	47 58	Berg (same as No. 1121).
1138	---do----	New York	47 58	48 58	Berg (same as No. 1105).
1139	---do----	Rathlin Head	48 04	49 35	Berg.
1140	---do----	-----do	48 03	49 27	Growlers.
1141	---do----	Ninfea	48 25	51 27	Berg.
1142	---do----	Unidentified vessel	49 47	51 26	Do.
1143	---do----	Icelandic plane	50 00	50 12	Do.
1144	June 11	USNS Callan	46 46	52 46	Berg (same as No. 1084).
1145	---do----	-----do	47 00	52 48	Berg (same as No. 1093).
1146	---do----	-----do	47 27	52 38	Berg (same as No. 1135).
1147	June 11	USNS Callan	47 28	52 39	Berg (same as No. 1134).
1148	---do----	-----do	47 49	51 29	Berg (same as No. 1096).
1149	---do----	-----do	47 53	48 29	Berg (same as No. 1123).
1150	---do----	-----do	47 54	49 13	Berg (same as No. 1138).
1151	---do----	-----do	47 48	50 57	Growler.
1152	---do----	Nova Scotia	46 46	52 56	Berg (same as No. 1144).
1153	---do----	-----do	47 04	52 43	Berg (same as No. 1145).
1154	---do----	-----do	47 16	52 46	Berg (same as No. 1063).
1155	---do----	-----do	Motion Bay		2 bergs (same as Nos. 1146, 1147).
1156	---do----	Anax	47 05	51 40	Berg (same as No. 1128).
1157	---do----	Sneaton	47 09	46 40	Berg (same as No. 1116).
1158	---do----	Anna Odland	47 15	46 57	Berg (same as No. 1117).
1159	---do----	Aslaug Rogenas	47 27	47 40	Berg (same as No. 1121).
1160	---do----	Gardenia	47 46	48 23	Berg (same as No. 1119).
1161	---do----	River Afton	49 53	50 48	Berg.
1162	---do----	Trader	52 25	52 02	Berg and loose field ice.
1163	June 12	Ginnheim	48 00	52 05	Berg.
1164	June 13	Nordmeer	47 05	52 00	Berg (same as No. 1156).
1165	---do----	Empress of France	47 16	51 52	Berg (same as No. 1164).
1166	---do----	Lousado	48 04	52 07	Berg.
1167	---do----	-----do	48 55	51 39	Do.
1168	---do----	Ilse Schulte	48 36	51 34	Do.
1169	---do----	-----do	49 25	50 06	Do.
1170	---do----	Unidentified plane	48 45	53 00	Do.
1171	---do----	-----do	48 45	53 10	Do.
1172	---do----	-----do	49 00	52 46	Do.
1173	---do----	MATS plane	49 55	50 00	Several bergs.
1174	---do----	L'Aventure	51 22	50 40	2 growlers.
1175	---do----	Canadian Dept. of Transport.	Strait of Belle Isle		Scattered bergs and growlers.
1176	---do----	-----do	From 50 45 to 51 35	54 50 to 54 50	15 mile wide ice floe.

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
1177	---do-----	-----do	Northward from 52 05	55 10	10 mile wide ice floe.
1178	June 14	Dunadd	47 16	51 47	Berg (same as No. 1165).
1179	---do-----	Irish Oak	47 54	48 15	Berg (xame as No. 1149).
1180	---do-----	Ascania	47 57	47 24	Berg.
1181	---do-----	Traviata	48 12	52 12	Do.
1182	---do-----	Unidentified plane	Vicinity 49 30	52 10	7 bergs.
1183	---do-----	-----do	between 50 00 and 49 00	50 00 and 53 00	12 small bergs.
1184	---do-----	Seton Hall Victory	52 42	51 90	Occasional bergs.
1185	June 15	Foldenfjord	47 17	51 48	Berg (same as No. 1178).
1186	---do-----	PAA plane	48 57	53 28	Berg.
1187	---do-----	Hydro	Vicinity Cape Harrison		Many bergs.
1188	---do-----	-----do	From White Bear Island to 54 00 to 53 35 to 53 35 to 53 25 to 52 02	56 50 to 55 15 to 55 25 to 55 05 to 54 45	Inner boundary pack ice.
1189	June 16	Beaverlodge	Point Amour to Cape Norman		Berg and 3 growlers.
1190	---do-----	-----do	Between Cape Norman and Belle Isle.		Berg.
1191	---do-----	-----do	East of Belle Isle		4 bergs and 6 growlers.
1192	---do-----	-----do	51 50	55 12	Berg.
1193	---do-----	-----do	51 50	55 16	Do.
1194	---do-----	-----do	51 51	55 19	Berg and pieces.
1195	---do-----	-----do	51 53	55 16	Berg.
1196	---do-----	-----do	51 56	55 12	Do.
1197	---do-----	-----do	52 00	55 00	3 bergs and pieces.
1198	June 16	Beaverlodge	52 18	54 23	Berg.
1199	---do-----	-----do	52 24	54 22	2 bergs.
1200	---do-----	-----do	52 28	53 58	Berg.
1201	---do-----	-----do	52 30	54 15	Do.
1202	---do-----	-----do	52 33	53 54	Do.
1203	---do-----	-----do	52 35	53 57	Do.
1204	---do-----	-----do	52 36	53 23	Do.
1205	---do-----	-----do	52 37	53 41	Do.
1206	---do-----	-----do	52 37	53 46	Do.
1207	---do-----	-----do	52 41	53 28	Do.
1208	---do-----	-----do	52 45	52 58	Do.
1209	---do-----	-----do	52 47	53 02	Do.
1210	---do-----	-----do	52 48	53 30	Do.
1211	---do-----	-----do	52 48	53 45	Do.
1212	---do-----	-----do	52 50	53 05	Do.
1213	---do-----	-----do	52 52	52 49	Do.
1214	---do-----	-----do	52 56	52 44	2 bergs.
1215	---do-----	-----do	52 58	52 41	Berg.
1216	---do-----	-----do	52 59	52 16	Do.
1217	---do-----	-----do	53 00	52 17	Do.
1218	---do-----	-----do	53 00	52 22	Do.
1219	---do-----	-----do	53 00	52 25	Do.
1220	---do-----	-----do	53 00	52 33	Do.
1221	---do-----	-----do	53 00	52 41	Do.
1222	---do-----	-----do	Southward of a line from 52 08 to 52 17	54 43 to 54 34	Pack ice.
1223	June 17	USNS Millicoma	49 12	52 21	Berg.
1224	---do-----	-----do	49 15	52 18	Do.
1225	---do-----	-----do	49 35	52 19	Do.
1226	---do-----	-----do	49 35	52 39	Do.
1227	---do-----	-----do	49 36	52 31	Do.
1228	---do-----	-----do	49 39	52 18	Do.
1229	---do-----	-----do	49 39	52 22	Do.
1230	June 17	USNS Millicoma	49 40	52 35	Berg.
1231	---do-----	-----do	49 41	52 17	Do.
1232	---do-----	-----do	49 45	52 22	Do.
1233	---do-----	-----do	49 45	52 29	Do.
1234	---do-----	-----do	49 47	52 28	Do.
1235	---do-----	-----do	49 54	52 42	Do.
1236	---do-----	-----do	50 00	52 48	Do.
1237	---do-----	-----do	50 06	52 24	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1238	do	do	50 18	52 24	Do.
1239	do	do	50 18	52 36	Do.
1240	do	do	51 41	52 27	Do.
1241	do	do	51 51	52 34	Do.
1242	do	do	52 06	52 41	Do.
1243	do	do	52 15	52 36	Do.
1244	do	do	52 30	52 30	Do.
1245	do	do	52 30	53 00	Do.
1246	do	do	52 36	53 20	Do.
1247	do	do	52 38	53 11	Do.
1248	do	do	52 39	53 29	Do.
1249	do	do	53 01	53 25	Do.
1250	do	do	53 02	53 20	Do.
1251	do	do	53 29	53 42	Do.
1252	do	do	53 37	53 53	Do.
1253	do	do	53 37	53 55	Do.
1254	do	do	53 37	53 57	Do.
1255	do	do	53 38	53 52	Do.
1256	do	do	53 38	53 58	Do.
1257	do	Baron Cawdor	49 40	50 00	Do.
1258	do	do	49 40	50 03	Do.
1259	do	Swiss Air plane	Between 50 15 and 50 05	53 11 and 53 08	Many bergs.
1260	June 18	Imperial Edmonton	48 58	52 53	Berg.
1261	do	do	49 02	52 45	Do.
1262	do	do	49 05	52 38	Do.
1263	June 18	Imperial Edmonton	49 23	52 54	Berg.
1264	do	do	49 33	53 00	Do.
1265	do	do	49 46	52 59	Do.
1266	do	USCGC Evergreen	49 00	52 20	Do.
1267	do	USNS Chepachet	50 59	52 57	Numerous bergs.
1268	June 19	Ice Patrol plane	47 25	52 41	Berg (same as No. 1155).
1269	do	do	47 29	52 38	Do.
1270	do	New York	48 29	46 17	Berg.
1271	do	USCGC Evergreen	49 05	51 43	Do.
1272	do	do	49 13	51 27	Do.
1273	do	do	49 16	51 22	Do.
1274	do	Empress of Scotland	From 52 48 to 52 33	52 13 to 53 01	12 bergs, numerous growlers.
1275	June 20	Ice Patrol plane	46 51	52 54	Berg (same as No. 1114).
1276	do	do	46 58	52 53	Berg (same as No. 1145).
1277	do	do	47 11	50 59	Berg (same as No. 1148).
1278	do	do	47 17	51 35	Berg (same as No. 1185).
1279	do	do	47 17	52 49	Berg (same as No. 1154).
1280	do	do	47 24	52 40	Berg (same as No. 1268).
1281	do	do	47 28	52 39	Berg (same as No. 1269).
1282	do	do	47 34	46 49	Berg (same as No. 1180).
1283	do	do	48 26	52 27	Berg.
1284	do	do	48 32	52 08	Do.
1285	do	do	48 33	51 35	Do.
1286	do	do	48 34	51 29	Do.
1287	do	do	48 35	49 25	Do.
1288	do	do	48 37	51 23	Do.
1289	do	do	48 40	51 28	Do.
1290	do	do	48 41	50 17	Do.
1291	do	do	48 45	51 21	Do.
1292	do	do	48 47	51 03	Do.
1293	do	do	20 miles east of Cape Bonavista		4 bergs.
1294	do	do	48 51	51 15	Berg.
1295	June 20	Ice Patrol plane	48 53	51 26	Berg.
1296	do	do	49 07	51 21	Do.
1297	do	do	49 20	50 55	Do.
1298	do	do	47 43	52 41	Growler.
1299	do	do	48 23	52 08	Do.
1300	do	do	48 56	50 55	Do.
1301	do	do	49 05	50 45	Do.
1302	do	Callisto	48 22	49 11	Berg.
1303	do	do	48 30	49 23	Do.
1304	do	Jan	48 22	49 00	Do.
1305	do	USCGC Humboldt	48 23	49 15	Do.
1306	do	do	48 19	49 30	Growler.
1307	do	Hydro	East of Belle Isle		20 mile patch of heavy field ice.
1308	June 21	Ice Patrol plane	46 48	52 56	Berg (same as No. 1275).
1309	do	do	47 00	52 53	Berg (same as No. 1276).
1310	do	do	47 22	52 41	Berg (same as No. 1278).
1311	do	do	47 28	52 40	Berg (same as No. 1281).
1312	do	do	48 30	51 52	Small berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1313	do	do	48 31	51 56	Do.
1314	do	do	48 35	51 45	Do.
1315	do	do	48 35	52 42	Do.
1316	do	do	48 42	51 49	Do.
1317	do	do	48 43	52 11	Do.
1318	do	do	48 47	52 29	Do.
1319	do	do	48 49	51 11	Do.
1320	do	do	48 50	52 08	Do.
1321	do	do	48 51	52 18	Do.
1322	do	do	48 52	52 28	Do.
1323	do	do	48 57	52 46	Do.
1324	do	do	49 59	52 10	Do.
1325	do	do	49 15	50 23	Do.
1326	do	do	49 16	51 55	Do.
1327	do	do	49 23	51 37	Do.
1328	do	do	49 32	51 20	Do.
1329	do	do	50 16	50 49	Do.
1330	do	do	50 52	51 12	Do.
1331	June 21	Ice Patrol plane	50 55	51 00	Medium berg.
1332	do	do	50 56	51 10	Small berg.
1333	do	do	51 10	51 22	Do.
1334	do	do	51 14	50 47	Do.
1335	do	do	51 24	51 30	Do.
1336	do	do	51 25	51 10	Do.
1337	do	do	51 30	51 19	Do.
1338	do	do	51 34	51 22	Do.
1339	do	do	46 52	52 55	Growler.
1340	do	do	47 18	52 45	Do.
1341	do	do	47 45	52 40	Do.
1342	do	do	48 35	51 50	Do.
1343	do	do	48 40	52 00	Do.
1344	do	do	48 45	50 46	Do.
1345	do	do	51 00	51 19	Do.
1346	do	Bow Hill	46 49	52 55	Berg (same as No. 1308).
1347	do	do	47 00	52 52	Berg (same as No. 1309).
1348	do	Grootebeer	47 22	46 49	Berg (same as No. 1282).
1349	do	Fort Avalon	47 24	52 40	Berg (same as No. 1310).
1350	do	do	47 28	52 39	Berg (same as No. 1311).
1351	do	Tasco	48 30	49 18	Berg.
1352	June 22	Lisita	47 17	46 34	Berg (same as No. 1348).
1353	do	Hans Honold	49 22	50 08	Berg.
1354	do	do	49 04	50 28	Growler.
1355	do	Billetal	49 52	54 29	Berg.
1356	do	do	49 58	54 18	Do.
1357	do	Cairndhu	From Belle Isle to 53 00	52 30	Numerous bergs and growlers.
1358	June 23	Schwanheim	48 42	48 57	Berg.
1359	do	Kattegatt	50 51	50 54	Do.
1360	do	Unidentified vessel	50 58	51 00	Do.
1361	do	Ascania	52 13	51 38	Do.
1362	do	do	52 17	51 39	Do.
1363	do	do	From 52 17	51 38 to Strait of Belle Isle	Many bergs and growlers.
1364	June 23	Sunmont	52 50	52 16	Berg.
1365	do	do	52 55	52 12	Do.
1366	do	do	53 02	51 45	Do.
1367	do	do	53 07	51 42	Do.
1368	do	do	52 59	52 00	Several growlers.
1369	June 24	Kymo	46 20	45 33	3 bergs.
1370	do	Manchester Trader	51 40	50 50	Berg.
1371	do	Arosa Sun	East of Belle Isle		Numerous bergs and growlers.
1372	do	Saxonia	52 38	52 18	Berg.
1373	do	do	52 39	51 58	Do.
1374	do	do	52 39	52 31	Radar target, probable berg.
1375	do	do	52 40	52 00	Berg.
1376	do	do	52 44	52 20	Radar target, probable berg.
1377	do	do	52 51	51 34	Berg.
1378	do	do	52 51	51 46	Radar target, probable berg.
1379	June 25	Ice Patrol plane	47 00	52 53	Berg (same as No. 1347).
1380	do	Andros	48 30	50 00	Berg.
1381	do	Unidentified plane	49 50	50 40	Do.
1382	do	do	49 55	50 32	2 bergs.
1383	do	TWA plane	50 00	49 30	Do.
1384	do	USNS Millicoma	51 40	56 27	Berg.
1385	do	do	51 45	56 12	Do.
1386	do	do	51 48	56 08	Do.
1387	do	do	51 50	55 40	Do.
1388	do	do	51 53	55 35	Do.
1389	do	do	51 55	55 45	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1390	...do.....	.....do	51 58	55 30	Do.
1391	...do.....	.....do	51 58	55 41	Do.
1392	...do.....	.....do	52 08	55 30	Do.
1393	...do.....	.....do	52 12	55 30	Do.
1394	...do.....	.....do	52 23	55 18	Do.
1395	...do.....	.....do	52 24	55 15	Do.
1396	...do.....	.....do	52 25	55 19	Do.
1397	...do.....	.....do	52 28	55 29	Do.
1398	...do.....	.....do	52 28	55 36	Do.
1399	...do.....	.....do	52 29	55 22	Do.
1400	June 25	USNS Millicoma	52 38	55 15	Berg.
1401	...do.....	.....do	52 38	55 24	Do.
1402	...do.....	.....do	52 38	55 30	Do.
1403	...do.....	.....do	52 38	55 36	Do.
1404	...do.....	.....do	52 47	55 15	Do.
1405	...do.....	.....do	52 47	55 28	Do.
1406	...do.....	.....do	52 48	55 20	Do.
1407	...do.....	.....do	52 48	55 28	Do.
1408	...do.....	.....do	52 50	55 31	Do.
1409	...do.....	.....do	52 51	55 29	Do.
1410	...do.....	.....do	52 55	55 25	Do.
1411	...do.....	.....do	52 56	55 15	Do.
1412	...do.....	.....do	52 56	55 18	Do.
1413	...do.....	.....do	52 57	55 34	Do.
1414	...do.....	.....do	52 57	55 39	Do.
1415	...do.....	.....do	52 59	55 41	Do.
1416	...do.....	Arosa Sun	52 06	53 29	Do.
1417	...do.....	.....do	52 17	51 15	Do.
1418	...do.....	.....do	52 19	52 18	Do.
1419	...do.....	.....do	52 27	51 20	Do.
1420	...do.....	.....do	52 27	51 28	Do.
1421	June 26	L'Aventure	49 16	49 48	Do.
1422	...do.....	.....do	51 47	50 02	Do.
1423	...do.....	San Mateo Victory	North of Belle Isl		Numerous bergs.
1424	...do.....	Nyon	52 26	54 05	Berg and several growlers.
1425	...do.....	.....do	53 07	51 34	Few small pieces of ice.
1426	...do.....	TWA plane	54 05	54 45	Many bergs.
1427	...do.....	Hydro	From		Field ice boundary.
			54 55	57 45	
			to		
			False Cape to		
			54 38	57 10	
			to		
			White Bear Island to		
			54 35	56 30	
			to		
			54 20	56 05	
			to		
			54 30	55 15	
1428	June 27	Ice Patrol plane	47 00	52 53	Berg (same as No. 1379).
1429	...do.....	.....do	47 24	52 40	Berg (same as No. 1310).
1430	...do.....	.....do	47 28	52 40	Berg (same as No. 1311).
1431	...do.....	Nyon	51 46	55 34	Berg.
1432	...do.....	.....do	51 49	55 41	Do.
1433	...do.....	Theodora Vlasspoulos	53 15	51 32	2 bergs, numerous growlers.
1434	June 28	TWA plane	49 20	52 28	6 bergs.
1435	...do.....	BOAC plane	49 50	50 35	6 bergs and various small pieces.
1436	...do.....	North Britain	Between		14 bergs, 10 growlers and numerous pieces.
			50 46	53 33	
			and		
			50 05	54 00	
1437	...do.....	Okeanoporos	50 20	50 45	Berg.
1438	...do.....	Scythia	52 27	52 07	Do.
1439	...do.....	.....do	52 32	52 06	Do.
1440	...do.....	.....do	52 34	42 09	Do.
1441	...do.....	.....do	52 28	51 49	Growlers.
1442	...do.....	Hydro	From White Bear Island		Pack boundary.
			to		
			54 33	56 32	
			to		
			54 45	56 55	
			to		
			55 50	58 10	
1443	June 30	Nova Scotia	47 23	52 40	Berg (same as No. 1429).
1444	...do.....	TWA plane	49 28	51 44	Berg.
1445	...do.....	.....do	49 44	51 08	Do.
1446	...do.....	BOAC plane	51 00	52 20	2 bergs.
1447	...do.....	N. B. McLean	51 58	55 44	3 bergs.
1448	...do.....	.....do	52 06	55 24	2 bergs.
1449	...do.....	.....do	52 22	55 23	Do.
1450	July 1	TWA plane	49 03	50 38	Several bergs.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° '	° '	
1451	---do-----	-----do----------	49 18	51 25	Do.
1452	---do-----	Holstein	51 45	51 09	2 bergs.
1453	July 2	Ice Patrol plane	47 28	52 38	Berg (same as No. 1430).
1454	---do-----	-----do----------	48 18	49 59	Berg.
1455	---do-----	-----do----------	48 21	52 28	Do.
1456	---do-----	-----do----------	48 27	48 25	Do.
1457	---do-----	-----do----------	48 29	49 25	Do.
1458	---do-----	-----do----------	48 29	52 53	Do.
1459	---do-----	-----do----------	48 30	49 40	Do.
1460	---do-----	-----do----------	48 31	50 15	Do.
1461	---do-----	-----do----------	48 38	50 21	Do.
1462	---do-----	-----do----------	48 52	50 45	Do.
1463	---do-----	-----do----------	48 53	50 31	Do.
1464	---do-----	-----do----------	48 41	50 15	Growler.
1465	---do-----	-----do----------	48 42	50 11	Do.
1466	---do-----	Unidentified plane	160 miles east of Wesleyville.		7 large bergs.
1467	---do-----	-----do----------	49 37	51 25	Several bergs.
1468	---do-----	Swissair plane	50 07	53 11	Several large bergs.
1469	---do-----	Sunmont	From 51 55 to 52 24	55 11 to 54 00	Bergs and growlers.
1470	---do-----	-----do----------	52 09	54 21	3 bergs and growlers.
1471	---do-----	-----do----------	52 17	53 59	Berg.
1472	---do-----	-----do----------	52 21	54 14	Do.
1473	---do-----	-----do----------	52 23	54 09	Do.
1474	July 3	Bar Haven	46 48	52 54	Berg (same as No. 1428).
1475	---do-----	Oslofjord	48 31	50 22	Berg.
1476	---do-----	-----do----------	49 14	49 28	Do.
1477	---do-----	-----do----------	49 12	49 22	Growler.
1478	---do-----	USNS Cowanesque	53 12	55 30	Berg.
1479	July 4	Rowanmore	48 25	50 22	Berg.
1480	July 5	Ice Patrol plane	48 25	50 25	Do.
1481	July 6	-----do----------	46 47	52 58	Berg (Same as No. 1474).
1482	---do-----	-----do----------	48 19	50 23	Berg.
1483	---do-----	Mormacyork	48 28	49 43	Radar target, probable berg.
1484	---do-----	-----do----------	48 32	49 46	Do.
1485	July 6	Mormacyork	51 58	52 34	Berg.
1486	---do-----	-----do----------	51 58	52 57	Berg and growler.
1487	---do-----	-----do----------	52 02	53 07	Berg.
1488	---do-----	-----do----------	52 05	52 25	4 bergs and floe ice.
1489	---do-----	-----do----------	52 06	52 37	Berg.
1490	---do-----	Ninfea	48 34	50 36	Berg and many growlers.
1491	---do-----	Redcar	48 38	51 17	Berg and bits.
1492	---do-----	PAA plane	49 25	52 40	Berg.
1493	---do-----	Scythia	51 45	54 49	Do.
1494	---do-----	-----do----------	51 49	54 35	Berg and growler.
1495	---do-----	-----do----------	52 02	54 38	Berg.
1496	July 7	Acheo	47 48	49 04	Do.
1497	---do-----	-----do----------	47 48	49 04	Growler.
1498	---do-----	Alfred Theodore	47 55	49 14	Berg and several growlers (same as No. 1496).
1499	---do-----	Maria Bibolini	48 09	49 00	4 bergs.
1500	---do-----	Adolf Leonhardt	48 13	50 20	Berg.
1501	---do-----	RCAF plane	49 10	53 00	3 bergs and several growlers.
1502	---do-----	Scythia	51 59	53 06	Berg.
1503	---do-----	-----do----------	52 04	54 11	Do.
1504	---do-----	-----do----------	52 06	52 03	Do.
1505	---do-----	-----do----------	52 07	54 07	Do.
1506	---do-----	-----do----------	52 08	52 15	Do.
1507	---do-----	-----do----------	52 10	52 20	Do.
1508	---do-----	-----do----------	52 16	52 22	Do.
1509	---do-----	-----do----------	52 22	52 45	Do.
1510	July 8	Redcar	48 34	50 36	Large berg.
1511	---do-----	-----do----------	48 41	51 09	Berg and bits.
1512	---do-----	North Britain	49 27	53 07	Berg.
1513	---do-----	Traviata	50 45	50 17	Do.
1514	---do-----	Saxonia	52 07	53 16	4 bergs.
1515	---do-----	-----do----------	52 12	53 39	Large berg.
1516	---do-----	-----do----------	52 18	53 43	Do.
1517	---do-----	-----do----------	52 35	53 11	Berg.
1518	---do-----	-----do----------	52 38	52 53	Do.
1519	---do-----	-----do----------	52 38	53 10	Do.
1520	---do-----	-----do----------	52 26	53 39	Bergy bit.
1521	---do-----	Unidentified plane	52 40	54 16	Berg.
1522	July 8	Ice Patrol plane	46 45	52 59	Berg (same as No. 1481).
1523	---do-----	-----do----------	47 28	52 40	Berg (same as No. 1453).
1524	---do-----	-----do----------	48 25	53 00	Berg.
1525	---do-----	-----do----------	49 10	51 37	Do.
1526	---do-----	-----do----------	48 22	52 58	Growler.
1527	July 9	-----do----------	49 01	51 41	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1528	---do-----	Hoegmarsoe	48 10	50 15	Berg.
1529	---do-----	-----do	48 25	49 51	Do.
1530	---do-----	TWA plane	48 24	43 00	Do.
1531	---do-----	Unidentified plane	48 55	53 00	6 bergs.
1532	July 10	Ice Patrol plane	47 38	48 25	Berg (same as No. 1496).
1533	---do-----	-----do	48 03	50 35	Berg.
1534	---do-----	-----do	48 09	50 59	Do.
1535	---do-----	-----do	48 20	47 26	Do.
1536	---do-----	-----do	48 21	50 10	Do.
1537	---do-----	Treworlas	47 33	48 31	Berg (same as No. 1532).
1538	---do-----	USCGC Evergreen	48 06	50 31	Berg.
1539	---do-----	-----do	48 29	50 30	Do.
1540	---do-----	Ranenfjord	48 06	50 36	Do.
1541	---do-----	Bergensfjord	48 07	50 23	Do.
1542	---do-----	Foldenfjord	48 12	51 02	Do.
1543	---do-----	TWA plane	49 21	51 00	Do.
1544	---do-----	-----do	49 41	51 00	Do.
1545	---do-----	-----do	49 56	51 00	Do.
1546	July 11	USCGC Evergreen	49 08	51 37	Do.
1547	July 12	Nova Scotia	47 23	52 41	Berg (same as No. 1523).
1548	---do-----	Swiss Airlines plane	49 17	53 16	Berg.
1549	July 13	Hartismere	48 37	46 15	Berg and 3 growlers.
1550	---do-----	Baron Cawdor	49 20	51 20	Berg.
1551	---do-----	Unidentified plane	50 00	51 15	Do.
1552	July 14	USCG plane	48 58	50 50	Do.
1553	---do-----	-----do	49 32	51 25	3 bergs.
1554	---do-----	Hydro	48 15	50 20	Berg.
1555	---do-----	-----do	50 09	50 56	2 bergs.
1556	---do-----	-----do	52 45	52 43	Berg.
1557	---do-----	Lakonia	Strait of Belle Isle		Several bergs.
1558	---do-----	Navajo Victory	52 35	54 25	Berg.
1559	July 14	Navajo Victory	52 44	53 20	Berg.
1560	July 15	USCGC Evergreen	53 26	53 13	Do.
1561	---do-----	-----do	53 36	55 15	Do.
1562	---do-----	-----do	53 43	54 48	Do.
1563	---do-----	-----do	53 55	55 08	Do.
1564	---do-----	-----do	54 07	55 30	Do.
1565	---do-----	-----do	54 12	54 57	Do.
1566	---do-----	-----do	54 18	55 04	Do.
1567	---do-----	-----do	54 40	54 16	Do.
1568	July 16	Hydro	48 05	48 55	Do.
1569	---do-----	-----do	48 25	52 46	Do.
1570	---do-----	-----do	49 58	53 32	Do.
1571	---do-----	-----do	50 05	54 03	Do.
1572	---do-----	-----do	50 07	54 55	Do.
1573	---do-----	-----do	50 55	55 45	Do.
1574	---do-----	-----do	51 15	55 30	Do.
1575	---do-----	-----do	51 16	55 30	Do.
1576	July 17	USCG plane	48 07	50 09	Do.
1577	---do-----	Hydro	51 22	55 18	Do.
1578	---do-----	-----do	52 04	52 33	Do.
1579	July 19	-----do	52 04	55 29	Do.
1580	---do-----	-----do	52 29	55 38	Do.
1581	---do-----	-----do	52 45	55 05	Do.
1582	---do-----	-----do	52 48	55 30	Do.
1583	---do-----	-----do	53 06	55 04	Do.
1584	---do-----	-----do	53 25	54 39	Do.
1585	---do-----	-----do	53 43	54 40	Do.
1586	---do-----	-----do	53 43	54 26	Do.
1587	July 20	High Point Victory	52 16	54 46	Few bergs.
1588	July 21	USN plane	49 32	51 59	7 bergs.
1589	July 22	USCG plane	49 20	52 49	2 bergs.
1590	---do-----	Hydro	50 28	55 12	Berg.
1591	July 23	-----do	49 28	42 40	3 bergs.
1592	July 24	-----do	49 15	52 22	Berg.
1593	---do-----	-----do	49 33	52 25	Do.
1594	---do-----	-----do	49 46	53 02	Do.
1595	---do-----	-----do	49 55	53 03	Do.
1596	July 26	USCG plane	47 40	49 00	Berg.
1597	---do-----	-----do	47 54	49 00	Berg and growler.
1598	---do-----	Mankato Victory	47 50	48 50	2 bergs (same as No. 1597).
1599	---do-----	Hydro	49 13	52 58	Berg.
1600	---do-----	-----do	49 22	52 59	Do.
1601	---do-----	-----do	49 35	53 16	Do.
1602	July 28	-----do	51 51	54 52	2 bergs.
1603	July 30	Unidentified plane	47 20	48 20	Berg (same as No. 1596).
1604	---do-----	TWA plane	49 20	53 00	Berg.
1605	---do-----	Hydro	51 37	56 14	Do.
1606	---do-----	-----do	51 41	56 10	Do.
1607	July 31	Humanitas	47 52	47 54	Berg (same as No. 1598).
1608	---do-----	Hydro	51 14	50 48	Berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1609	Aug. 6	do	52 45	52 42	Several bergs.
1610	Aug. 9	Gileannes	52 16	52 22	Berg.
1611	Aug. 11	Avon Ventura	52 37	51 35	Do.
1612	Aug. 15	Hydro	53 03	52 34	Do.
1613	do	do	53 15	52 33	Do.
1614	Aug. 29	Arosa Sun	51 40	55 45	Do.
1615	Aug. 21	Hydro	51 15	56 56	Few bergs.
1616	Aug. 24	Empress of France	53 01	51 40	Berg.
1617	Aug. 28	USCG plane	50 18	50 16	Berg, several growlers.
1618	Aug. 31	L'Aventure	51 15	55 29	Berg.
1619	Sept. 1	USCGC Owasco	54 49	56 18	Do.
1620	do	do	54 53	56 24	Do.
1621	Sept. 2	Hydro	51 48	50 45	Do.
1622	Sept. 5	Irish Pine	52 19	51 26	Do.
1623	do	USCG plane	50 43	53 06	Do.
1624	do	Unidentified plane	53 45	53 30	Do.
1625	Sept. 6	do	51 55	50 43	Do.
1626	Sept. 8	Alabama	52 48	51 28	Do.
1627	Sept. 10	USCG plane	50 50	53 10	Do.
1628	Sept. 12	USCGC Half Moon	52 09	50 56	Do.
1629	do	Unidentified plane	50 53	53 00	Do.
1630	Sept. 14	Hydro	55 25	56 42	Do.
1631	Sept. 20	do	53 53	54 10	Do.
1632	do	do	53 40	53 23	Do.
1633	Sept. 22	BOAC plane	49 55	49 55	Berg.
1634	Sept. 24	L'Aventure	50 18	52 47	Do.
1635	Oct. 18	Soya Lovisa	55 02	56 35	Do.
1636	Oct. 22	Hydro	51 35	56 20	Do.
1637	Oct. 26	Blairspey	51 34	54 21	Do.
1638	Dec. 4	Forsok	51 46	55 21	Do.
1639	do	do	51 48	55 06	Do.
1640	Dec. 22	Erholm	56 03	42 00	Do.
1641	do	do	56 35	41 05	Do.
1642	Dec. 23	do	52 08	39 00	Do.
1643	do	do	52 28	37 20	Do.
1644	do	Imperial Halifax	49 16	53 10	Do.
1645	Dec. 27	Unidentified Vessel	56 15	37 48	Do.
1646	do	USCG plane	47 49	52 47	Do.
1647	Dec. 28	Wabana	47 32	52 35	Do.
1648	do	Unidentified plane	47 53	52 25	Do.
1649	do	do	47 33	52 34	Do.
1650	do	do	47 55	52 25	Do.
1651	Dec. 29	Zinnia	49 10	51 22	Do.
1652	do	Irving Lake	47 23	52 33	Do.

PHYSICAL OCEANOGRAPHY OF THE GRAND BANKS REGION AND THE LABRADOR SEA IN 1956[1]

By Floyd M. Soule and J. E. Murray
(U. S. Coast Guard)

The *USCGC Evergreen* served as oceanographic vessel of the International Ice Patrol again in 1956. Descriptions of instruments, and deck and laboratory arrangements have been published in earlier bulletins of this series. No new gear was used nor were any major changes in arrangement made in 1956.

Temperature and salinity data were collected during three surveys made during the season and on a postseason cruise. The first survey, intended to develop the dynamic topography of the waters over and immediately seaward of the eastern and southern slopes of the Grand Banks from the latitude of Flemish Cap to the Tail of the Grand Banks and westward of the Tail to about 52°W., took place between 31 March and 14 April (Argentia to Argentia) with the work of collection of data confined to the period from 1 April to 13 April. The weather did not require the suspension of oceanographic work at any time during the survey. The only delay was a six-hour period on 12 April during which a fathometer fault was located and repaired. During the first survey 86 stations (6037 to 6122) were occupied.

Because of necessary engine repairs, departure for the second survey was from Boston on 15 May instead of from Argentia on 25 April as had been planned. On completion of the survey the *Evergreen* returned to Argentia on 2 June. The actual work of collection of data took place between 19 May and 1 June. The area covered by the 95 stations of the survey was the same as that of the first survey plus a westward extension westward of the Tail of the Banks to about longitude 53° W. A delay of about 3 hours was caused by gales on 27 May and another 1 hour delay on 31 May was occasioned by the replacement of a GEK electrode cable which had been cut by the screw.

The third survey, from 11 to 21 June (Argentia to Argentia) developed the dynamic topography of the waters over and immediately seaward of the northeastern slope of the Grand Banks

[1] To be reprinted as Contribution No. 877 in the Collected Reprints of the Woods Hole Oceanographic Institution.

from Flemish Cap to and including the Bonavista triangle. No delays were encountered from weather or other causes and the 67 stations were occupied between 12 and 19 June.

The postseason cruise, 6 to 23 July (Boston to Argentia) comprising 29 stations in the occupation of the Bonavista triangle, 10 to 13 July, and 22 stations in the occupation of the section from South Wolf Island, Labrador to Cape Farewell, Greenland, 15 to 20 July, was delayed 2 hours on 15 July for fathometer repairs, 2½ hours on 17–18 July for radar repairs and 19 hours on 18–19 July by weather.

The oceanographic work was under the supervision of Oceanographer Floyd M. Soule who was assisted by LT John E. Murray. Other assistants in the observational work were Francis N. Brown, yeoman first class; Elwood C. Gray, aerographer's mate first class; Lewis M. Lawday, aerographer's mate second class; Hugh R. McCartney Jr., aerographer's mate second class; and Bruce M. McCluskey, boatswain mate second class.

Of the 299 stations occupied during the season and postseason surveys, the 22 stations forming the section across the Labrador Sea were occupied from the surface to as near bottom as was practicable, and at the other 277 stations the observations extended to about 1,500 meters where the depth of water permitted. As in previous years, the intended depths of observation in meters, were 0, 25, 50, 75, 100, 150, 200, 300, 400, 600, 800, 1,000 and thence by 500-meter intervals. The dynamic heights have been referred to the 1,000-decibar surface, except for the section across the Labrador Sea where the 1,500-decibar surface has been used for reference. Temperature and salinity were measured at each observation level.

Deep sea reversing thermometers were used to measure temperatures and determine depths of observation. The protected thermometers used were, for the most part, of Richter and Wiese manufacture but a small percentage were made by Negretti and Zambra, G.M. Manufacturing Co., and the Kahl Scientific Instrument Corp. The unprotected thermometers used were made by Richter and Wiese and by Kahl. The thermometers were used in pairs and the individual instruments making up the pairs were shifted periodically to permit intercomparison of the protected thermometers. From a total of 1,993 comparisons, the probable difference between the corrected readings of a pair of protected thermometers was $\pm 0.010°C$. Many of the thermometers had recently been compared in the laboratory with thermometers tested by the National Bureau of Standards. As in most cases the temperatures are the means of the corrected readings of a pair of thermometers it is considered that the observed temperatures listed in the table of oceanographic data have a probable error of $\pm 0.01°C$.

Routine measurements of salinity were made, as in previous years, with a Wenner salinity bridge using a substitution method. From measurements and tests of the instrument prior to the beginning of the 1956 field work it was concluded that there was no need for a redetermination of its calibration curve. Water from an oil-sealed carboy of sea water was used as a working standard of salinity for the routine measurements. At least twice during each run samples of Copenhagen normal sea water were measured as unknowns. At the end of each survey these measurements of Copenhagen water were used to compute any necessary corrections to the salinities of the samples measured during the survey. At the beginning of the season Copenhagen water of the batch P_{17} was used. Samples of Copenhagen water of the batch P_{22} were also measured as unknowns to get the conductivity-salinity relationship of this batch in terms of the batch P_{17}, thus enabling a shift to batch P_{22} as the reference standard at the beginning of the 3rd survey. For the three surveys made during the season the corrections did not exceed $0.005°/_{oo}$ and no corrections have been applied. The correction for the post season cruise was $+0.006°/_{oo}$ and corrections have been applied in the table of oceanographic data. The dynamic topography of the Bonovista triangle shown in figure 15 however, has not been corrected and the dynamic heights shown in this figure are consequently 4 mm too high. The calibration curve of the salinity bridge is determined by the measurement of samples of sea water whose salinities are known from silver nitrate titration. The accuracy of the salinities determined by the bridge is therefore no better than the accuracy of the silver nitrate titration method used in determining the calibration curve. The precision of the bridge measurements, however, is much better and is about $\pm 0.005°/_{oo}$ in salinity.

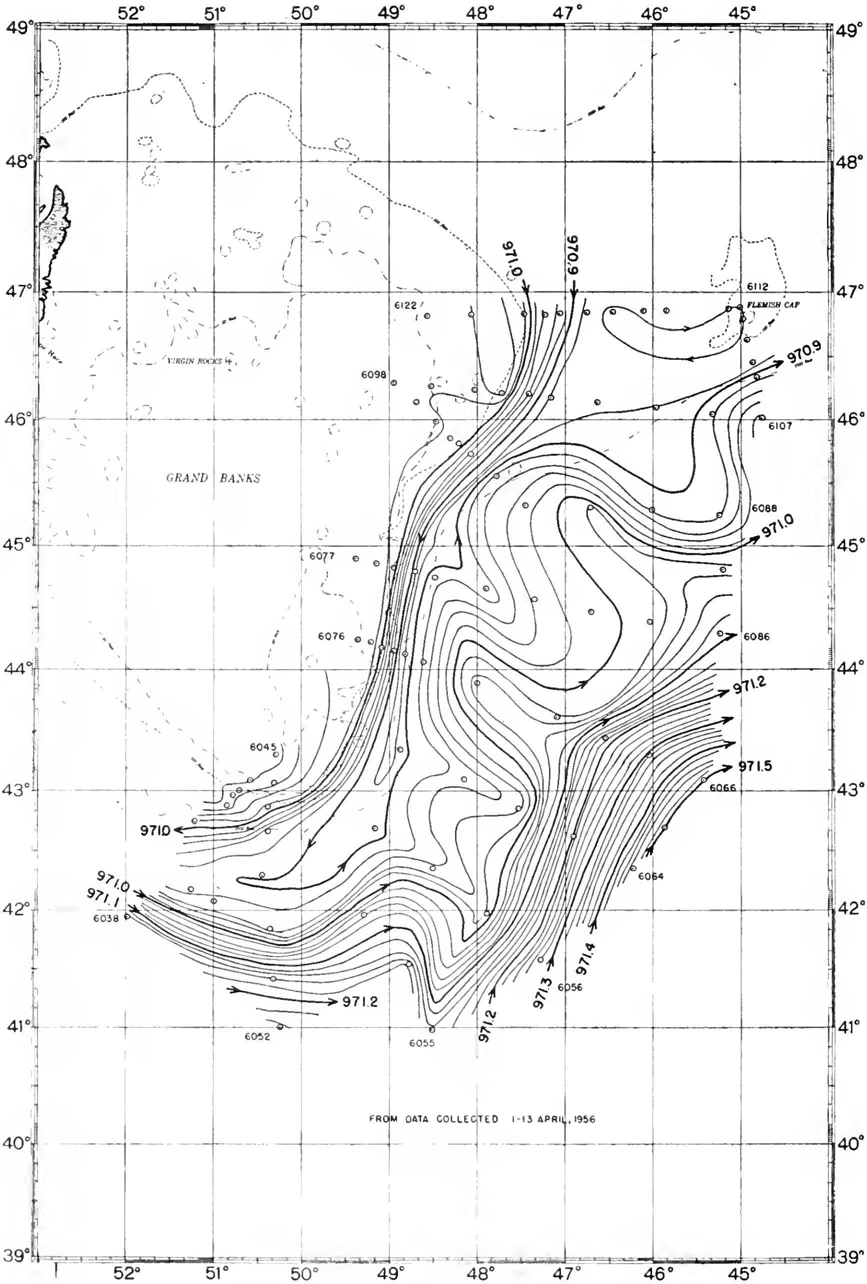

FIGURE 12.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 1-13 April 1956. Oceanographic station positions are indicated and the station numbers given at turning points.

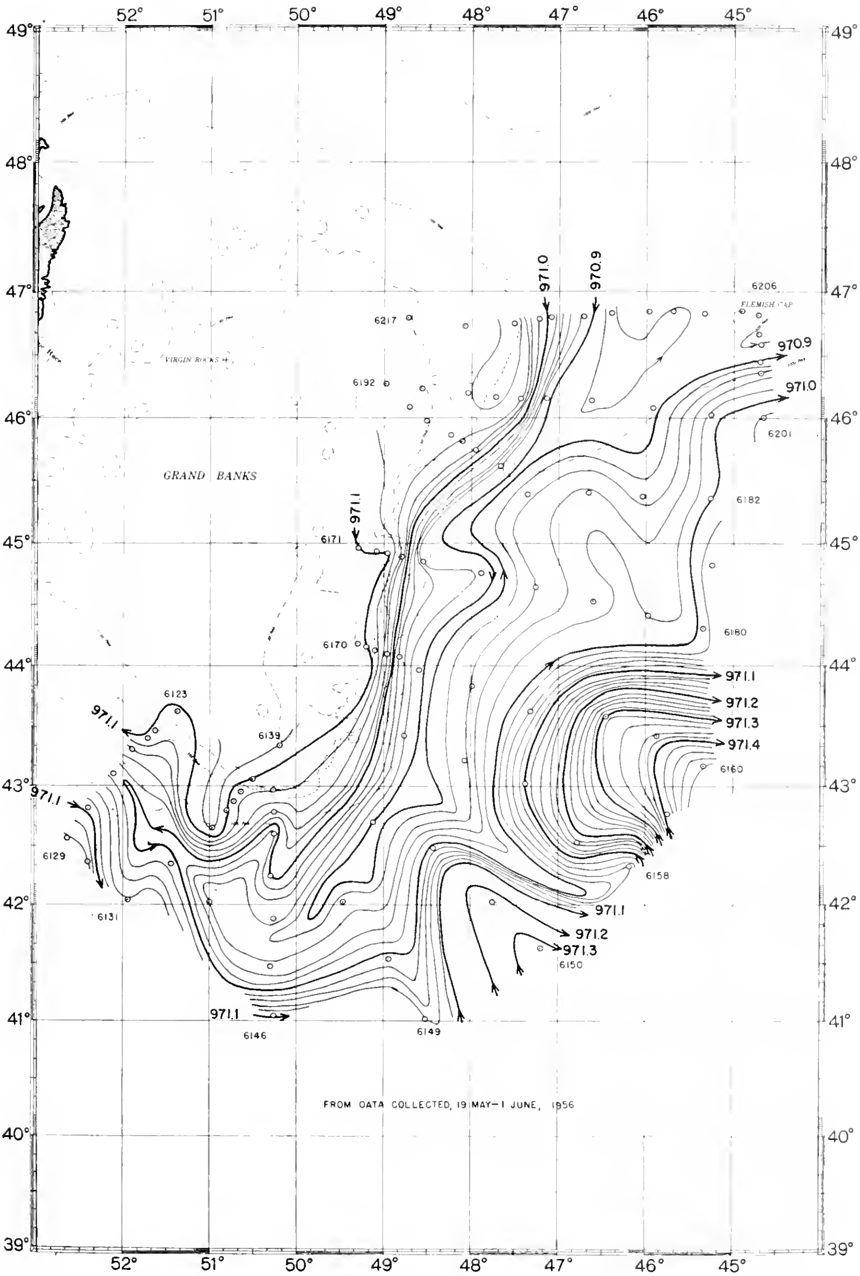

FIGURE 13.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 19 May–1 June 1956. Oceanographic station positions are indicated and the station numbers given at turning points.

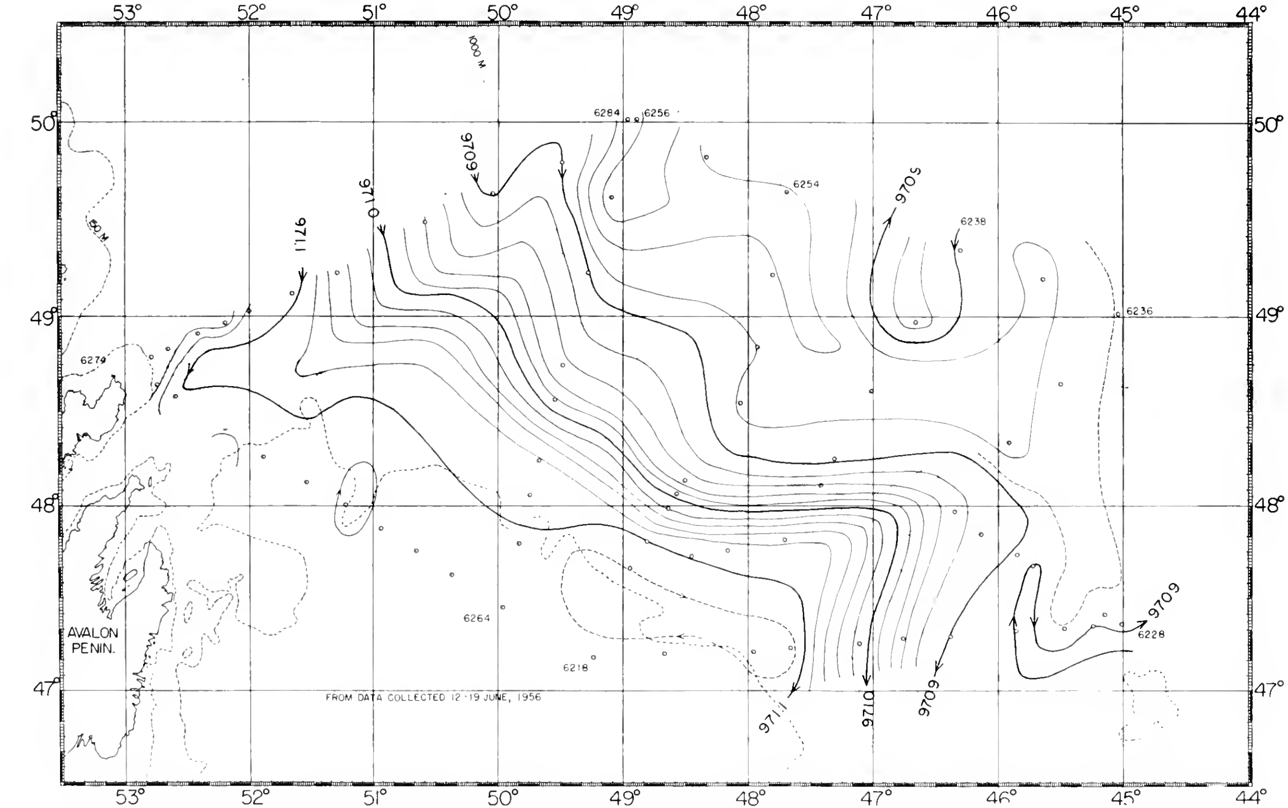

FIGURE 14.—Dynamic topography of sea surface relative to the 1000-decibar surface from data collected 12–19 June 1956. Oceanographic station positions are indicated and station numbers given at turning points.

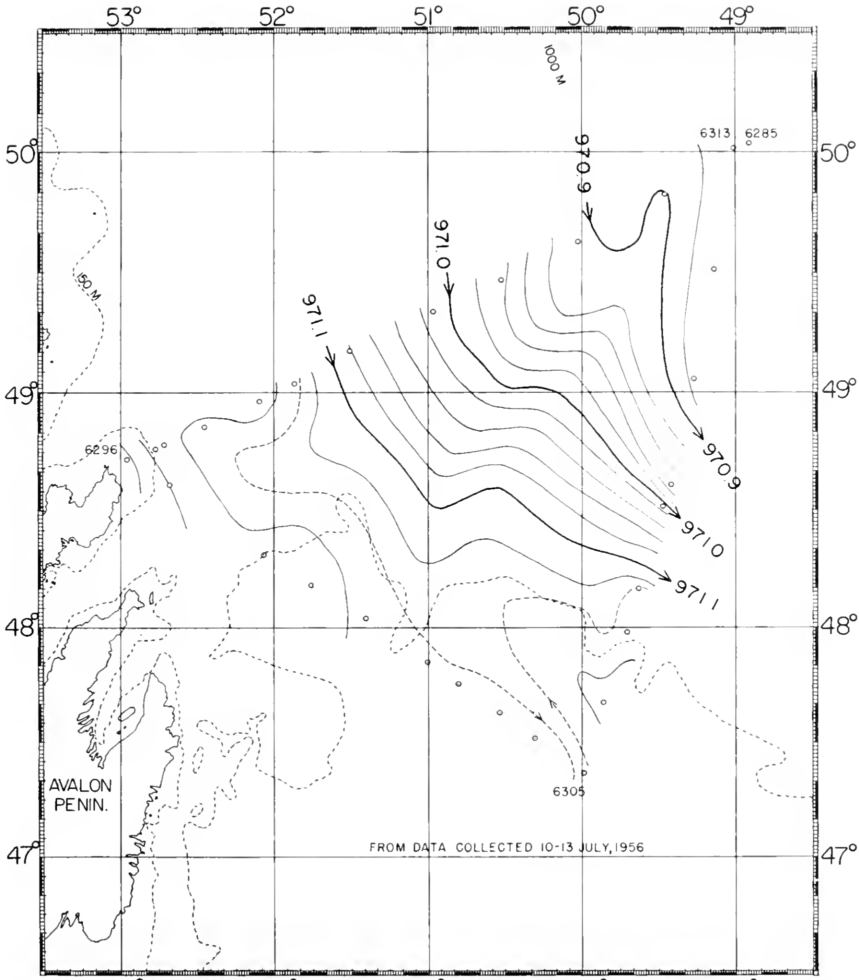

FIGURE 15.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 10–13 July 1956. Oceanographic station positions are indicated and the station numbers given at turning points.

The dynamic topography found during the three surveys made during the season and during the postseason occupation of the Bonavista triangle is shown in figures 12, 13, 14 and 15 presented in chronological order. It will be seen from figure 12 that during the first survey except at the two northernmost sections the Labrador Current was flowing with about normal surface speeds all the way to and westward of the Tail of the Banks. This water continued westward of the Tail beyond the limits of the surveyed area before recurving to the south and east. The temperature structure of the Labrador Current was not normal and the temperature minimum was atypically warm and poorly defined except at the northern sections. Here the abnormality seemed to be confined to that part of the current which was eastward of the 100-fathom curve.

Figure 13 shows the considerable northwestward extension of the Labrador Current beyond the Tail of the Banks. The surface speed of the Labrador Current remained strong along the eastern edge of the Banks and in the northwestern part of the surveyed area the pattern of set onto the Banks inside the 100-fathom curve shown in figure 12 was repeated. The temperature minimum of the Labrador Current was about 0.6°C colder than the abnormally warm temperatures found during the first survey. While these colder minimum values showed a recovery to about normal, this recovery was limited to the inshore half of the current.

During the third survey (figure 14) the abnormally warm minimum temperatures in the offshore half of the Labrador Current continued. The only station where negative temperatures were found seaward of the 971.0 dynamic meter contour was station 6260 on the southeastern side of the Bonavista triangle and the lowest dynamic height at which a temperature minimum as cold as —1.0°C was found was 971.05 dynamic meters on the northern side of the triangle. Along the southernmost section of the survey the dynamic topography indicated little change from that found in the northern part of the second survey.

The current pattern in the Bonavista triangle found during the post-season cruise (figure 15) was much the same as that found during the third survey, the principle change being a seaward shift of the current pattern. From the topography shown in figure 15 any bergs crossing the 49th parallel eastward of about longitude 51–45° W. Would have followed the eastern branch of the Labrador Current and those crossing westward of that longitude would have followed the western branch.

Labrador Current water and Atlantic Current water found in the Grand Banks region have temperature-salinity characteristics which identify them as water masses. Here also these parent water masses mix in a sufficiently constant proportion so that the mixed water can be regarded as a virtual water mass. Mean T–S curves for these three water masses have been derived from observations made during the 8-year period 1934–41. Conditions found during the recent postwar years were compared with these prewar means for want of any better normals. We now have a postwar series of observations of comparable length made during the 9-year period 1948–56. The mean T-S relationships for each of the three water masses is shown for each of the two periods in figure 16.

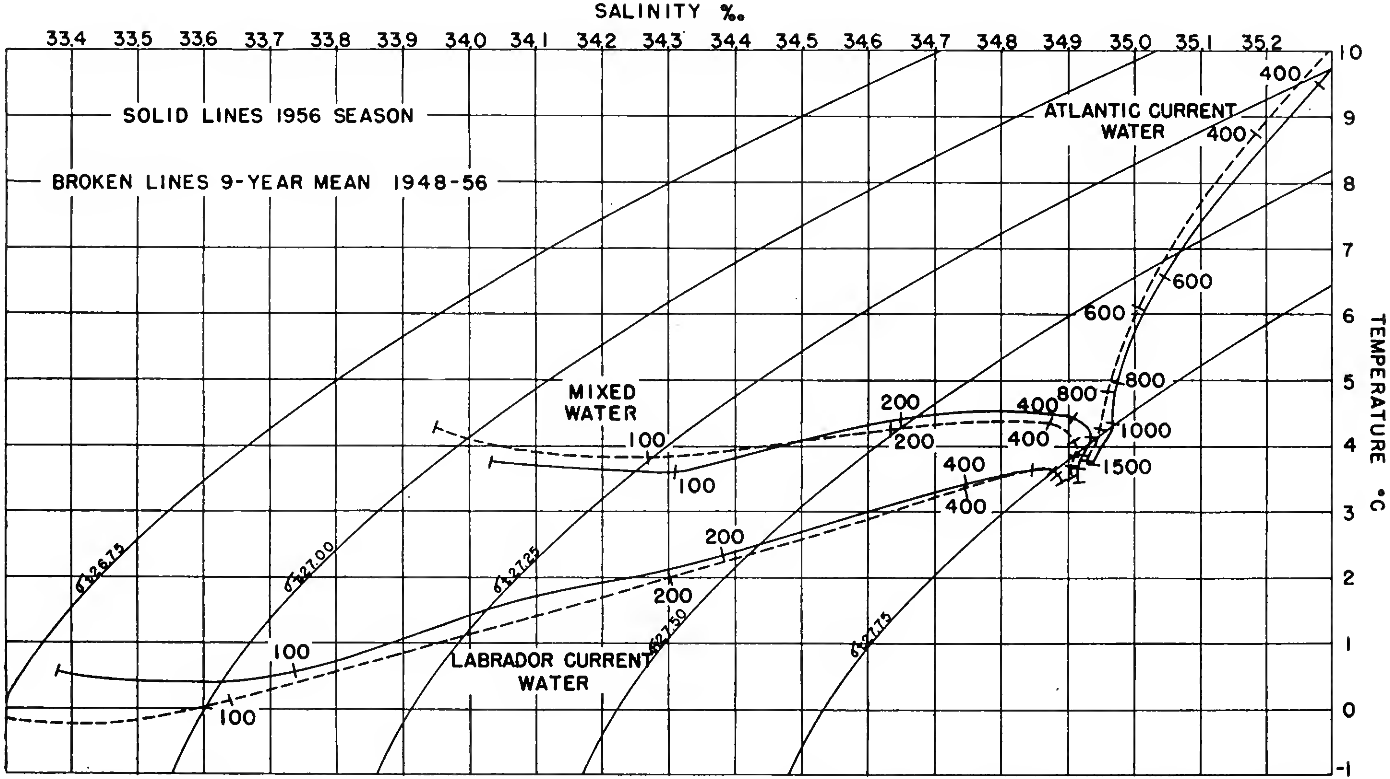

FIGURE 16.—Mean temperature-salinity relationships for Labrador Current water, Atlantic Current water, and mixed water found in the Grand Banks region during the period 1948–56 (shown as solid lines) compared with means for the period 1934–41 (shown as broken lines).

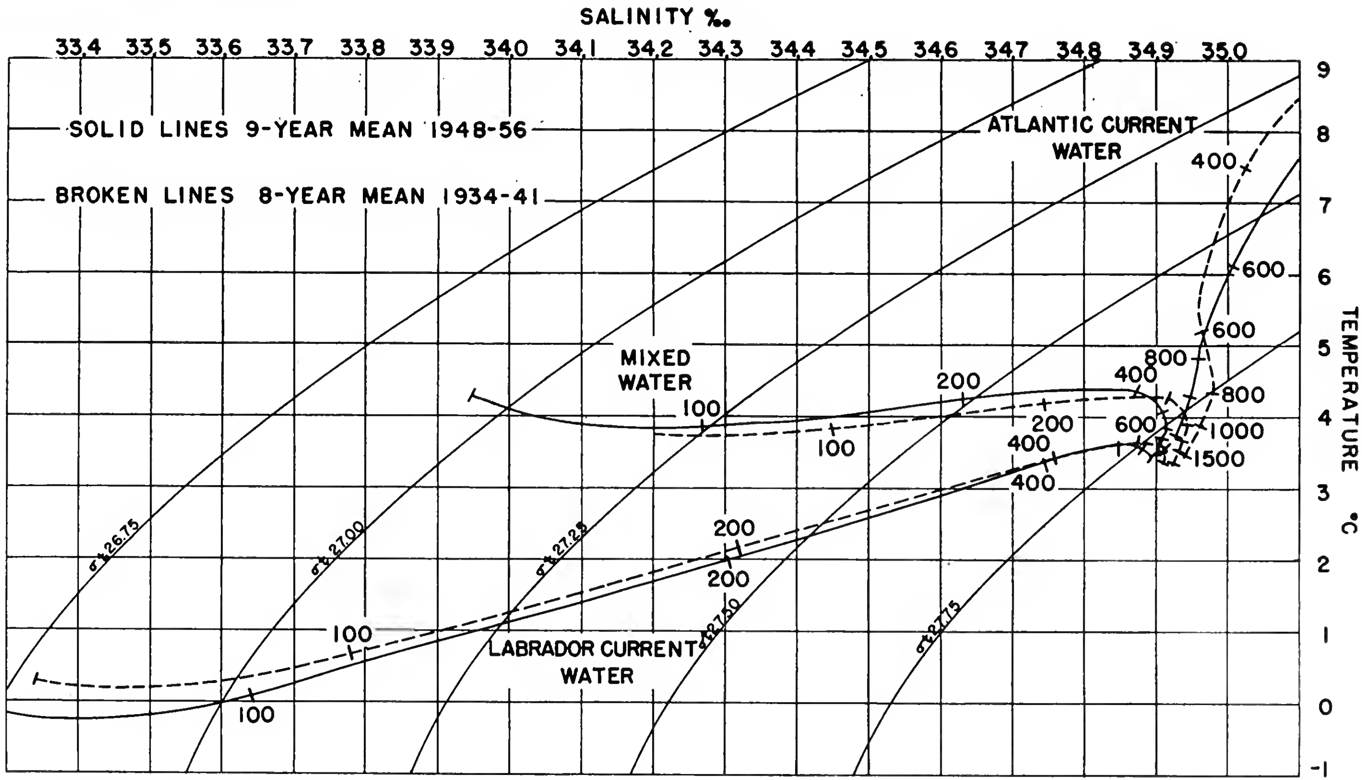

FIGURE 17.—Temperature-salinity relationships for Labrador Current water, Atlantic Current water, and mixed water found in the Grand Banks region. Solid lines show conditions found during the first and second surveys in 1956 and broken lines represent the 9-year means for the period 1948–56. An approximate depth scale in meters is given.

The density is less in each water mass level for level in the recent period than in the earlier period. In Labrador Current water the postwar observations show fresher and colder water at the levels above 600 meters and fresher water of about the same temperatures at the levels below 600 meters. The postwar mixed water is fresher and warmer at all levels. In Atlantic Current water the postwar observations show saltier and warmer water at levels above 600 meters and fresher and warmer water at 800 meters and below. The prewar salinity inversion with a minimum at about 5.5° is not present in the postwar curve. The salinity difference between the prewar and postwar curves at 1,000 meters is about 0.02°/oo, being somewhat less in Atlantic Current water and somewhat more in Labrador Current water and mixed water. While it is possible that this may represent a shift in instrument standardization it is considered to be at least partly a real change in salinity of the water. The temperature changes are considered to be real. The differences in the curves for Atlantic Current water are not as significant as those in the curves for the other two water masses since most of the surveys do not get far enough into the Atlantic Current to get a representative sampling of the entire current.

In figure 17 the T-S relationships found in 1956 are compared with the means for the period 1948–56. It will be seen that in 1956 the Labrador Current water was denser, warmer and saltier than the mean at levels above 600 meters and was the same as the mean at levels below 600 meters. The mixed water was denser and saltier than the mean at all levels and colder above about 150 meters, warmer from 150 to 800 meters and about the same below 800 meters. The Atlantic Current water was denser, saltier and warmer than the mean at all levels.

The position of the cold wall was estimated for each of the first two surveys, using as a criterion the horizontal projection of the line along which a temperature of 6°C corresponds to a salinity of 34.95°/oo. To permit a simple numerical expression of the position of this cold wall with respect to its advance toward or retreat from the Grand Banks we have used the area between it and the fixed rhumb lines of the 45th parallel, the 49th meridian from 45° N., to 43° W., and a line from 43° N., 49° W., through 42° N., 47° W., extended. This area was 7.7 and 7.5 (x 10^4 square kilometers) for the first and second surveys respectively. Reasoning that the position of the cold wall is determined by the relative strengths of the Labrador Current and the Atlantic Current the effect of the latter is approximated by adjusting the area by 10^4 square kilometers for each 10^6 cubic meters per second of Labrador Current entering the area past the 45th parallel. The resulting adjusted area, A, was 4.10 and 2.63 for the first and second surveys respectively. These figures are to be compared with 3.62 and 1.60 respectively, computed from the 1952 prediction formula $A=6.97(H-5.07)-1.67$ where H, expressed in feet, is the sea level at Charleston minus the departure from average sea level at Bermuda 11½ months earlier.

The Labrador Current has been studied in some detail for a number of years through the examination of the velocity and temperature distribution in vertical sections which have been repeatedly occupied. The section across the West Greenland Current off Cape Farewell also has been studied in the same manner although the dates of the various occupations and those of the section across the Labrador Current are not as widely distributed over the spring and summer months as are those for the sections in the Grand Banks region. The various sections have been designated as follows. Sections NW, SW and SE are the northwestern, southwestern and southeastern sides of the Bonavista triangle which is defined by its corners located just off Cape Bonavista, Newfoundland, 50° N., 49° W., and about 47°20′ N., 50°00′ W. Section H is roughly parallel to the southeastern side of the Bonavista triangle and extends north-northeasterly from about 47°10′ N., 49°15′ W. Section G extends northeasterly from about 47°10′ N., 48°40′ W. Section F_2 is an east-west section between the Grand Banks and Flemish Cap along the parallel of 47°15′ N. Section F is similar to F_2 but about 30 miles farther south. Section T extends southeasterly from about 46°20′ N., 49°00′ W. Section U extends easterly from the Grand Banks at about 45°00′N. Section W extends southerly from the Grand Banks along the meridian of 50°15′ W.

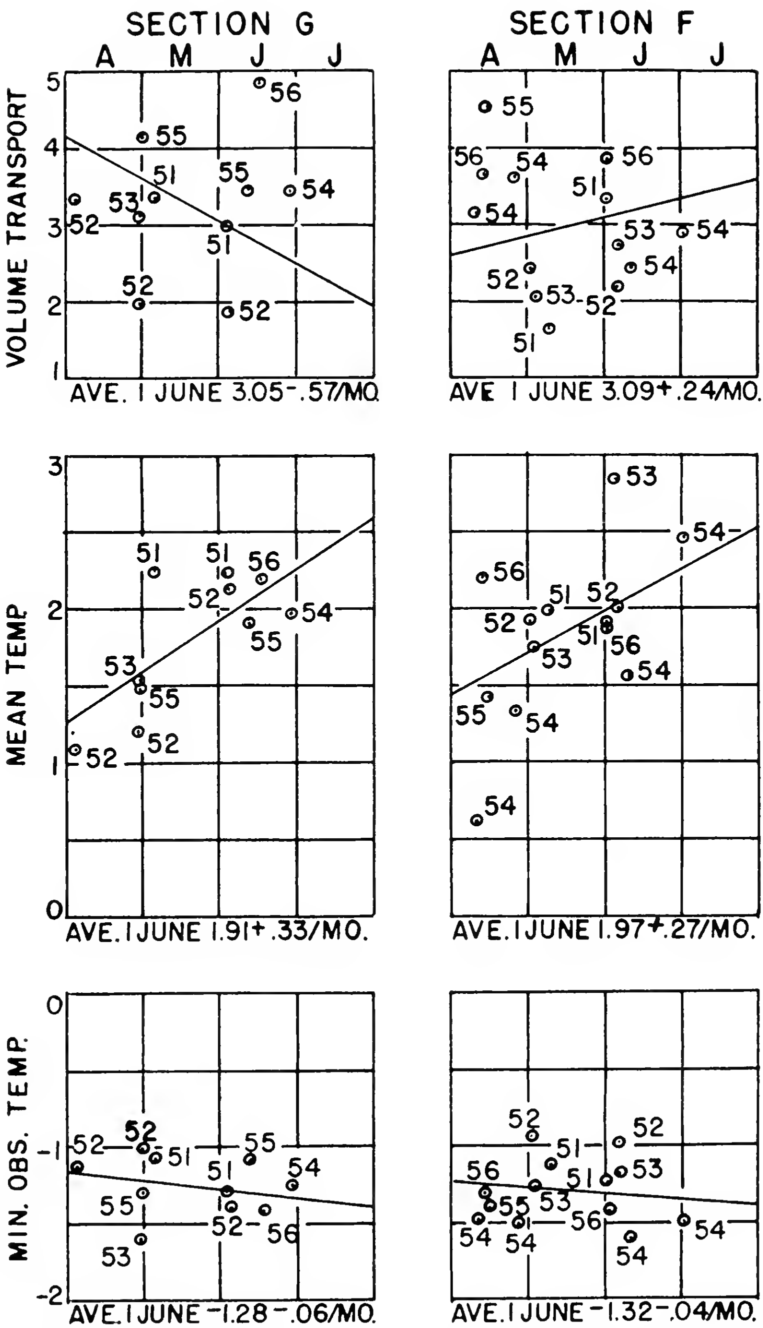

FIGURE 18.—Tentative normal seasonal change in volume transport, mean temperature, and minimum observed temperature of the Labrador Current at sections G and F.

The data from these sections, while not numerous, have permitted the development of some tentative normal seasonal variation relationships for a part of the year. Those for the West Greenland Current off Cape Farewell were published in bulletin 35 of this series. These data for the section across the Labrador Current off South Wolf Island, Labrador, have so far been treated as of a common date and average values are used for comparison with those for an individual occupation. Tentative normal seasonal variation curves for sections T, U and W have been published in bulletin 36 and those for the Bonavista triangle appear in bulletin 39. Data from sections H and F_2 are still insufficient for the development of even tentative normals. Figure 18 gives the approximate normal seasonal variation relationships at sections F and G. The seasonal increase in volume transport for section F does not agree with the seasonal decrease found for section G. All three sections of the Bonavista triangle show a seasonal increase in volume transport. It is to be expected that section F would show either a seasonal decrease or a smaller seasonal increase than that at the Bonavista triangle. These curves are therefore looked upon with suspicion and additional data may show that the seasonal decrease at section G is less than shown in figure 18 and that the volume transport at section F normally has a seasonal decrease.

Table 1.—Summary of velocity sections across Labrador Current occupied in 1956

Section	Volume transport			Mean temperature			Minimum observed temperature			Heat transport		
	1956	Normal	Anomaly	1956	Normal	Anomaly	1956	Normal	Anomaly	1956	Normal	Anomaly
1st Survey:												
F	3.65	2.71	+0.94	2.21	1.55	+0.66	−1.30	−1.26	−0.04	8.07	4.19	+3.88
T	2.59	3.31	−0.72	2.01	1.95	+0.06	−0.73	−1.40	+0.67	5.20	6.45	−1.25
U	3.58	5.34	−1.76	2.72	1.47	+1.25	−0.46	−1.22	+0.76	9.77	7.85	+1.92
W	5.53	4.24	+1.29	2.37	2.02	+0.35	+0.14	−0.51	+0.65	13.10	8.56	+4.54
2d Survey:												
F	3.86	3.10	+0.76	1.87	1.98	−0.11	−1.43	−1.32	−0.11	7.22	6.14	+1.08
T	3.76	2.67	+1.09	2.10	1.73	+0.37	−1.38	−1.55	+0.17	7.90	4.62	+3.28
U	4.87	3.84	+1.03	1.75	2.31	−0.56	−1.04	−1.22	+0.18	8.49	8.87	−0.38
W	5.20	4.13	+1.07	2.93	3.10	−0.17	−0.54	−0.41	−0.13	15.25	12.80	+2.45
3d Survey:												
NW	4.11	3.76	+0.35	1.40	1.23	+0.17	−1.60	−1.67	+0.07	5.76	4.62	+1.14
SW	0.68	0.52	+0.16	−0.82	−0.27	−0.55	−1.61	−1.64	+0.03	−0.56	−0.14	−0.42
SE	3.78	3.15	+0.63	2.02	1.74	+0.28	−1.38	−1.54	+0.16	7.63	5.48	+2.15
H	4.44	-------	-------	2.18	-------	-------	−1.45	-------	-------	9.67	-------	-------
G	4.87	2.74	+1.93	2.19	2.09	+0.10	−1.42	−1.31	−0.11	10.69	5.73	+4.96
F2	4.54	-------	-------	1.77	-------	-------	−1.52	-------	-------	8.05	-------	-------
Postseason:												
NW	4.71	4.04	+0.67	1.88	1.41	+0.47	−1.62	−1.61	−0.01	8.86	5.70	+3.16
SW	0.42	0.62	−0.20	0.15	0.06	+0.09	−1.57	−1.64	+0.07	0.06	0.04	+0.02
SE	4.82	3.32	+1.50	2.35	1.98	+0.37	−1.47	−1.58	+0.11	11.34	6.57	+4.77
South Wolf Island	4.18	4.72	−0.54	1.75	2.46	−0.71	−1.50	−1.49	+0.01	7.33	11.61	−4.28

There were 18 occupations of various of these sections across the Labrador Current in 1956. Table 1 gives the volume transport, mean temperature, minimum observed temperature and heat transport found during these occupations in comparison with the seasonal normal values where they are available. In the table, as well as in the text, the volume transport is given in millions of cubic meters per second, mean temperature and minimum observed temperature are in degrees Centigrade, and heat transport is given in millions of cubic meter degrees Centigrade per second.

In volume transport, table 1 shows a preponderance of positive anomalies, the exceptions being sections T and U during the first survey and the South Wolf Island section occupied during the post season cruise. The mean temperatures were all higher than normal during the first survey and except for section T were below normal during the second survey. The Labrador Current at the Bonavista triangle was warmer than normal during both occupations and at South Wolf Island it was colder than average. The percentage of the volume transport following the eastern branch of the Labrador Current at the Bonavista triangle during the 3d survey was 84.7 which was close to the seasonal normal of 85.1 percent. At the time of the post season cruise, however, this had increased to 92.0 percent whereas the normal seasonal change is a reduction to 83.6 percent. As the volume transport at the triangle increased from 4.28 to 4.98 between the two occupations, whereas the normal seasonal increase is from 3.72 to 4.00 during this period, the positive anomaly increased from 0.56 to 0.98. This, together with the increase in the positive anomaly in mean temperature shown in table 1, indicates that the anamalous increase in the percentage following the eastern branch was caused by an increase in the warmer offshore part of the Labrador Current, from which an increased activity in the circulation of the Labrador Sea is inferred.

In bulletin 39 of this series it was noted that the minimum observed temperature at the South Wolf Island section was slightly warmer and its corresponding salinity somewhat fresher than these values at the Bonavista triangle. Following is a tabulation of the minimum observed temperatures and their corresponding salinities at the South Wolf Island section and at the Bonavista triangle for each of the 9 years from which nearly synoptic observations are available.

	South Wolf Island			Bonavista triangle		
Year	Depth	Temperature	Salinity	Depth	Temperature	Salinity
1948	81	−1.55	32.72	189	−1.61	33.17
1949	73	−1.70	32.98	99	−1.62	33.29
1950	50	−1.68	32.82	61	−1.76	33.17
1951	69	−1.34	32.66	96	−1.58	33.00
1952	74	−1.68	32.78	95	−1.63	33.13
1953	51	−1.21	32.88	92	−1.67	33.06
1954	102	−1.58	32.85	98	−1.67	33.15
1955	103	−1.66	32.95	100	−1.66	33.08
1956	75	−1.50	33.01	75	−1.62	32.96
Average	75	−1.54	32.85	101	−1.65	33.11

Only in 1949 and 1952 was the minimum observed temperature at the South Wolf Island section colder than that at the Bonavista triangle. Except for 1956 the corresponding salinities at the South Wolf Island section were fresher than at the Bonavista triangle. The direction of the salinity difference is not surprising since the average depth of the minimum temperature was about 26 meters greater at the Bonavista triangle than at the South Wolf Island section. The previously offered explanation of colder water at the Bonavista triangle being brought about by winter time concentration through the removal of water by freezing is not completely satisfactory and while it no doubt plays an important part in producing the temperatures and salinities found at the Bonavista triangle in the summertime, it seems probable that the T-S characteristics of the water found off South Wolf Island in summer are decidedly affected by the discharge of fresh water from Hamilton Inlet. Nutt and Coachman[2] have estimated that the winter's precipitation at Hebron Fjord, Labrador is released into the Fjord between May 15 and July 15.

These same authors found a trend toward lower salinity and a slight warming from measurements made in late July and early August in 1949, 1952, and 1954 over which span the total freshening amounted to 0.34°/₀₀. While the foregoing table shows salinity fluctuations of about the same range a T–S plot of the nine annual points in chronological sequence does not show any such pronounced trend either at South Wolf Island or at the Bonavista triangle. Remembering that these are points of minimum observed temperature and that the temperature minimum over the continental shelf is probably the least disturbed of any part of the Labrador Current during the warmer part of the year by onshore or offshore winds, they may reasonably be taken as representative of the inshore frigid component of the Labrador Current. Because of the various depths of the different observations, however, scaled

[2] The Oceanography of Hebron Fjord, Labrador—Nutt, David C. and Lawrence K. Coachman. J. Fish. Res. Bd. Canada. vol. 13 no. 5; 1956.

values from the same stations at constant level were plotted (at 75 meters off South Wolf Island and at 100 meters for the Bonavista triangle) this plot showed similarly negative results as to any consistent trend.

Referring again to table 1 it will be noted that the volume transport of the Labrador Current at the South Wolf Island section was 4.18 whereas that at the Bonavista triangle a few days earlier was 4.98. Usually there is some loss of volume transport to the eastward between the South Wolf Island section and

Table 2

Ship	Year	Occupations of sections across— Labrador Current off South Wolf Island: Date	Vol. Trans.	Mean Temp.	Min. Obs. temp.	Heat Trans.	West Greenland Current off Cape Farewell: Date	Vol. Trans.	Mean Temp.	Heat Trans.
Godthaab	1928						.92 May	4.0	4.1	16.4
Marion	1928	.73 July	5.1	3.3	−1.45	16.5	.05 Sept.	4.4	5.5	24.1
General Greene	1931	.34 July	1.3	1.7	−1.41	2.2	.05 Aug.	3.7	5.3	19.5
Do	1933	.73 July	7.60	3.41	−1.06	25.90	.27 July	5.76	4.19	24.13
Do	1934	.31 July	5.03	2.68	−1.60	13.50	.40 July	2.91	5.1	14.86
Meteor	1935						.24 March	7.5	4.0	30.0
General Greene	1935	.73 Aug.	4.22	2.76	(−1.50)	11.65	.60 Aug.	8.50	4.99	42.44
Do	1936	.65 June	3.32	1.27	−1.61	4.22	.75 June	6.37	4.05	25.83
Do	1938	.79 July	4.20	2.92	−1.56	12.25	.89 July	5.43	4.69	25.04
Do	1939	.34 July	4.56	2.69	−1.51	12.27	.45 July	6.31	4.19	26.46
Do	1940	.82 June	2.75	1.52	−1.72	4.17				
Do	1941	.79 July	2.32	2.60	−1.08	6.03	.89 July	6.46	4.87	31.46
Evergreen	1948	.37 July	3.01	2.21	−1.55	6.65	.50 July	1.52	3.93	5.97
Do	1949	.18 July	5.16	2.3	−1.70	11.87	.27 July	2.52	3.62	9.12
Do	1950	.02 Aug.	5.92	2.63	−1.68	15.57	.11 Aug.	7.76	4.26	33.06
Do	1951	.60 July	5.30	2.63	−1.34	13.93	.69 July	5.28	3.68	19.41
Do	1952	.53 July	6.37	2.63	−1.68	16.76	.63 July	5.93	3.79	22.50
Do	1953	.50 July	6.41	2.64	−1.21	16.94	.63 July	7.35	3.84	28.22
Do	1954	.82 Aug.	7.84	2.39	−1.58	18.72	.92 Aug.	8.95	4.95	44.33
Do	1955	.51 July	5.02	2.62	−1.66	13.15	.60 July	5.66	4.74	26.85
Do	1956	.50 July	4.18	1.75	−1.50	7.33	.62 July	7.32	4.10	30.01
Average		.59 July	4.72	2.46	−1.49	11.61				

the Bonavista triangle. With the volume transport some 0.8 higher at the Bonavista triangle than at South Wolf Island the explanation would seem to be that at least 0.8 were involved in a cyclonic closed eddy northeastward of the Bonavista triangle. This has been indicated in figure 19 which schematically presents the volume transports listed in table 1.

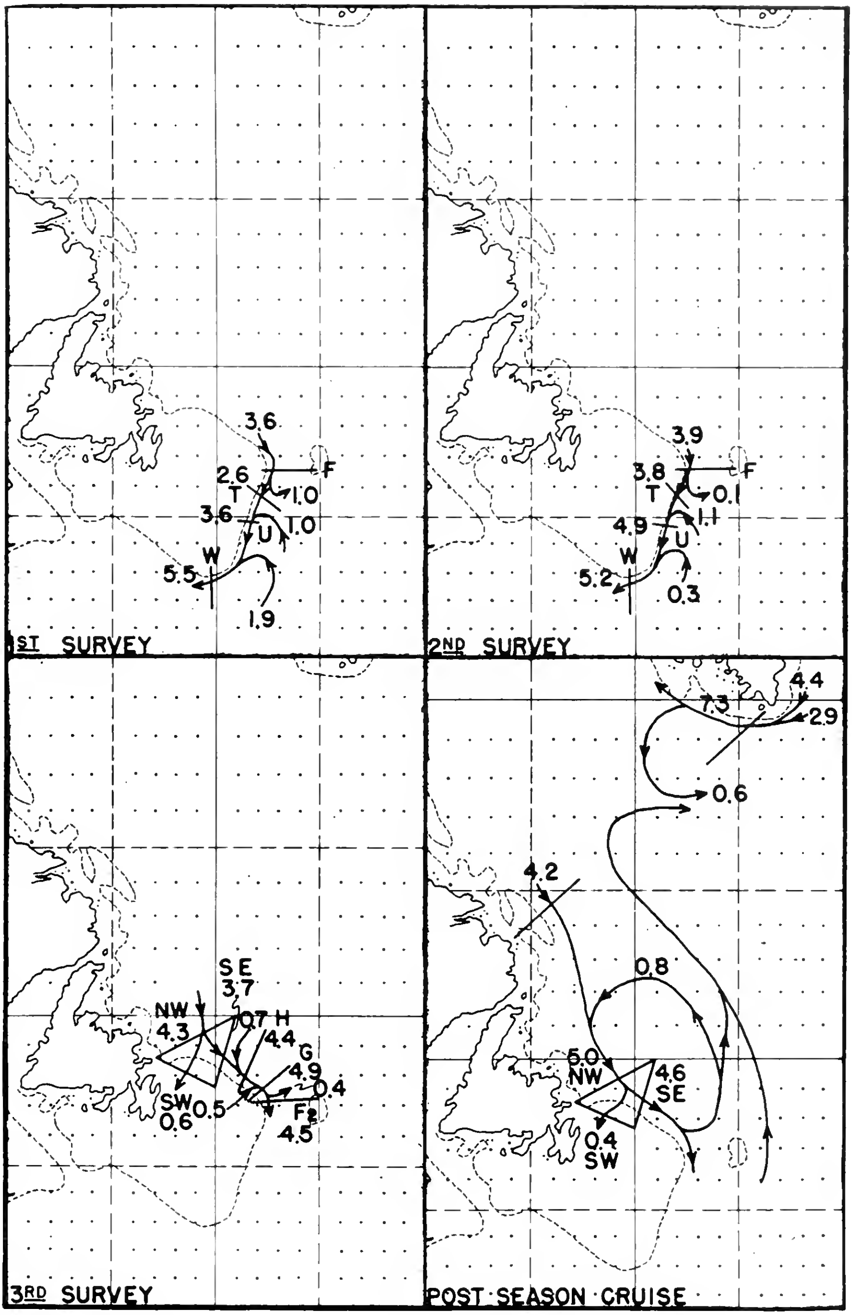

FIGURE 19.—Schematic representation of circulation deducted from sections occupied during 1956. Numerals indicate volume transport in units of cu.m/sec X 10^{-6}.

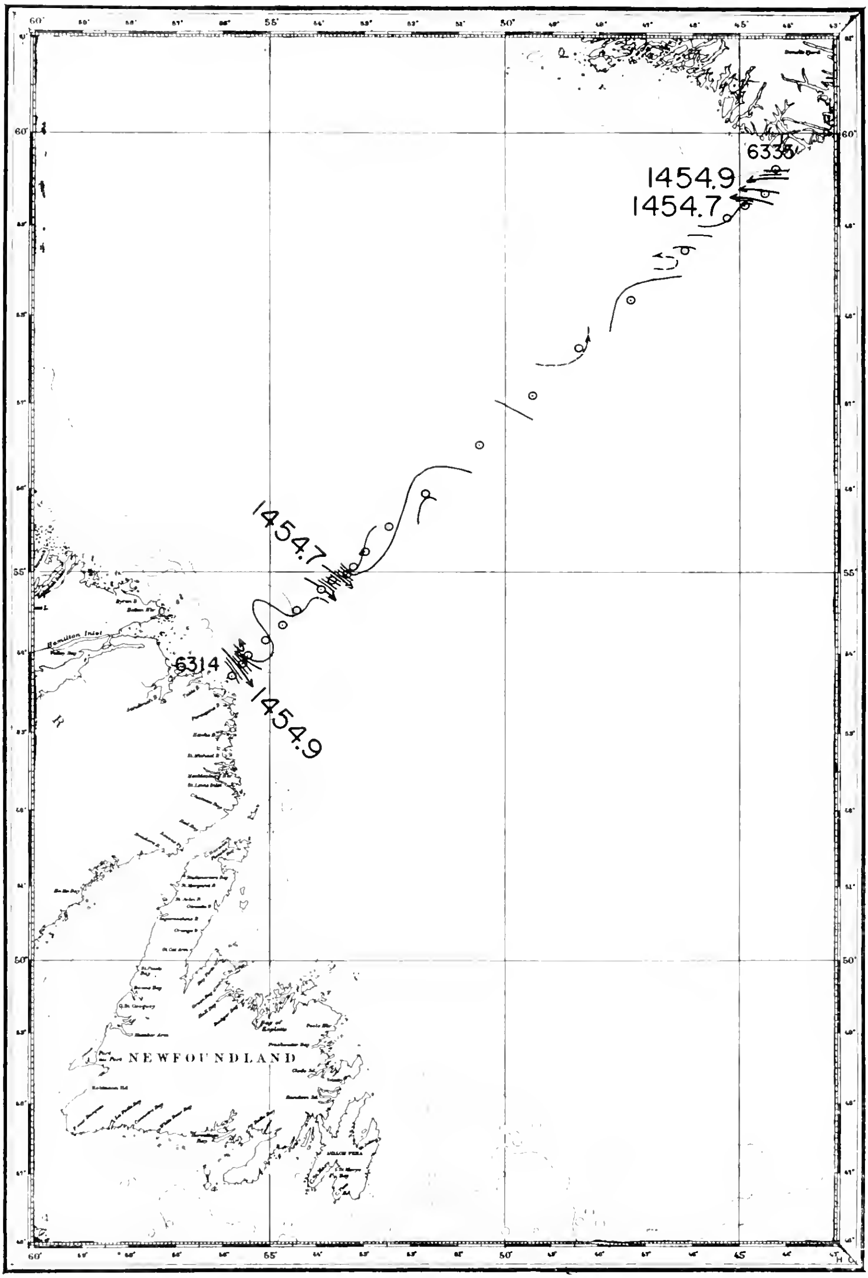

FIGURE 20.—Dynamic topography of the sea surface relative to the 1500-decibar surface from data collected 15-20 July 1956. Oceanographic station positions are indicated and the station numbers given at turning points.

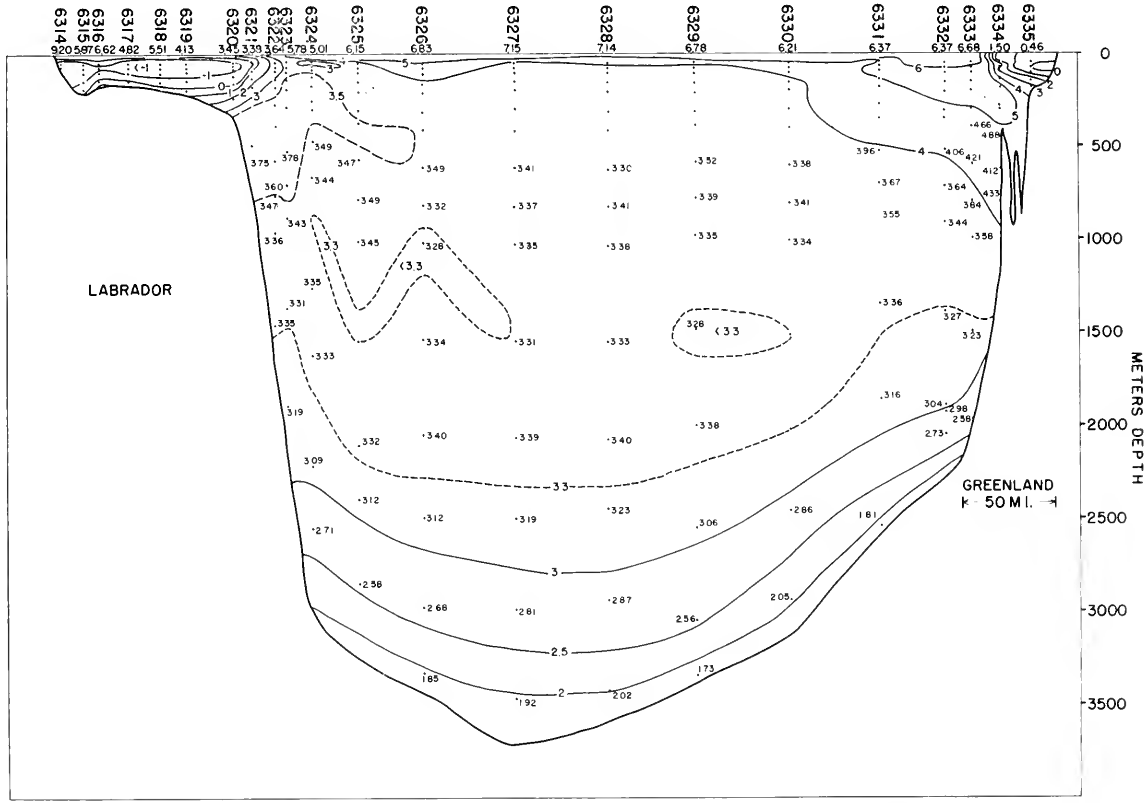

FIGURE 21.—Temperature distribution along section between South Wolf Island, Labrador, and Cape Farewell, Greenland, 15–20 July 1956.

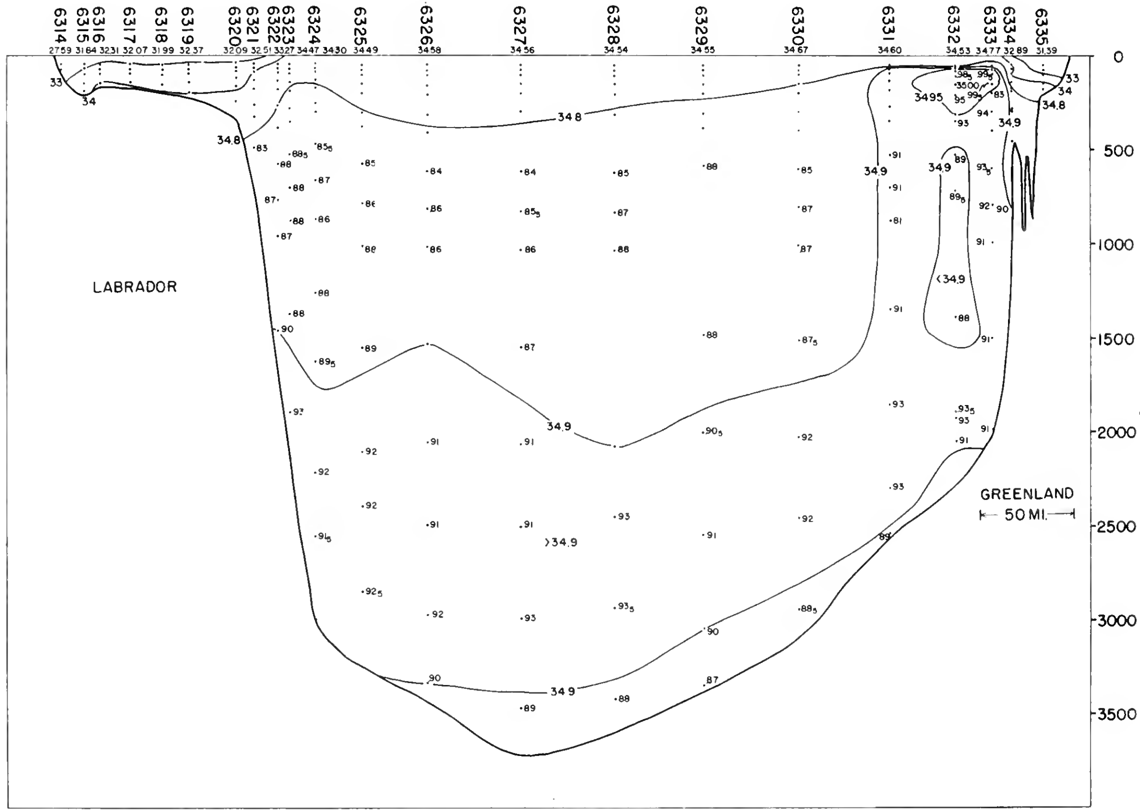

FIGURE 22.—Salinity distribution along section between South Wolf Island, Labrador, and Cape Farewell, Greenland, 15–20 July 1956.

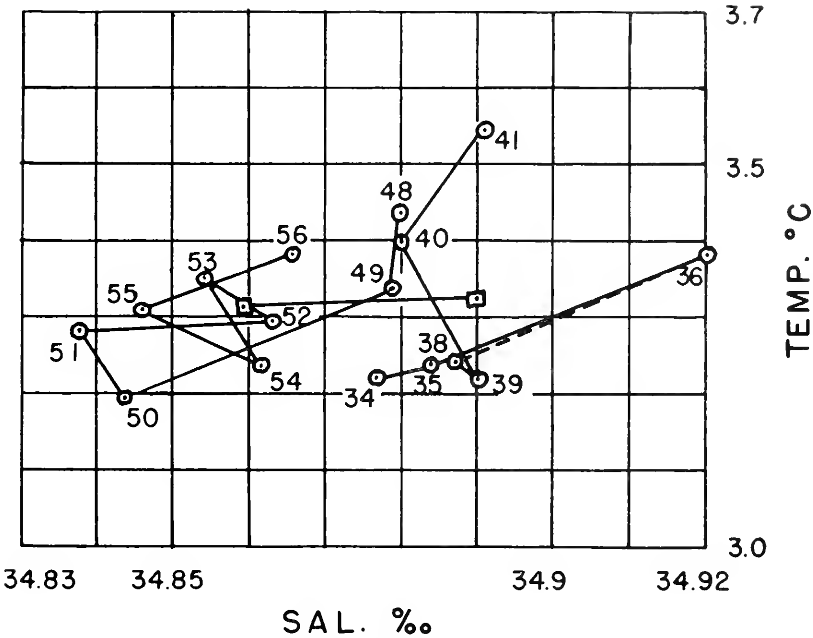

FIGURE 23.—Year to year variations in the temperature and salinity of the intermediate water of the Labrador Sea along the South Wolf Island-Cape Farewell section from summertime observations. For each year the average of all observed temperatures between 450 and 1750 meters from the central part of the section have been plotted against the average of the corresponding salinities and labeled with the last two digits of the year of observation. Solid lines connect the points for successive years except that since the section was not occupied in 1937 a broken line connects the points for 1936 and 1938. Squares indicate the means for the periods 1934–41 and 1948–56.

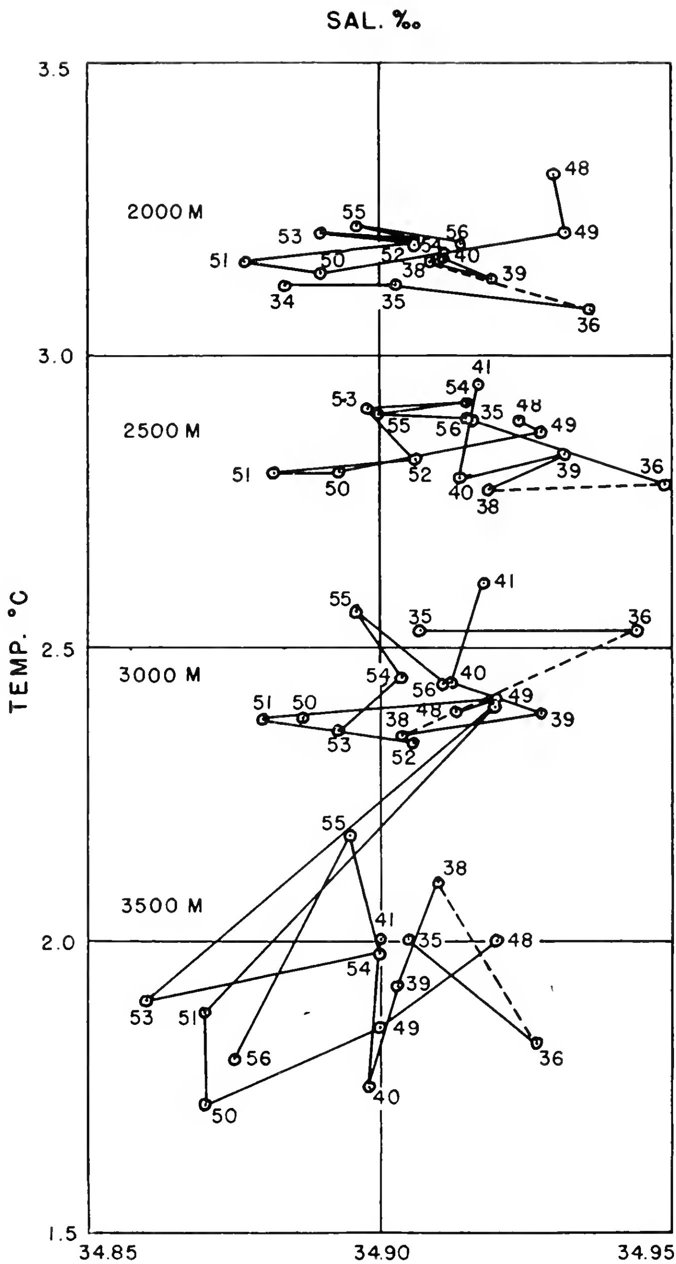

FIGURE 24.—Year to year variations in the temperature and salinity of the deep water of the Labrador Sea along the South Wolf Island-Cape Farewell section from summertime observations. For each year the average of all scaled values of temperature at and below 2000 meters have been plotted against the average of the corresponding scaled values of salinity and labeled with the last two digits of the year of observation.

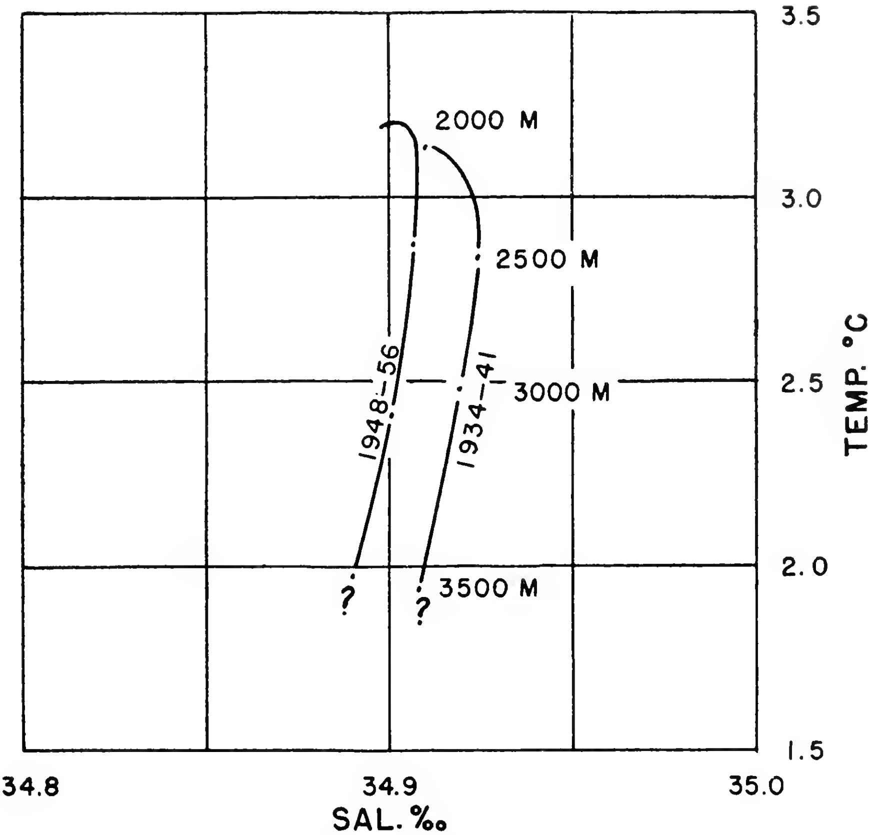

FIGURE 25.—Mean scaled values of temperature of the deep water of the Labrador Sea plotted against mean scaled values of corresponding salinity for the periods 1934–41 and 1948–56.

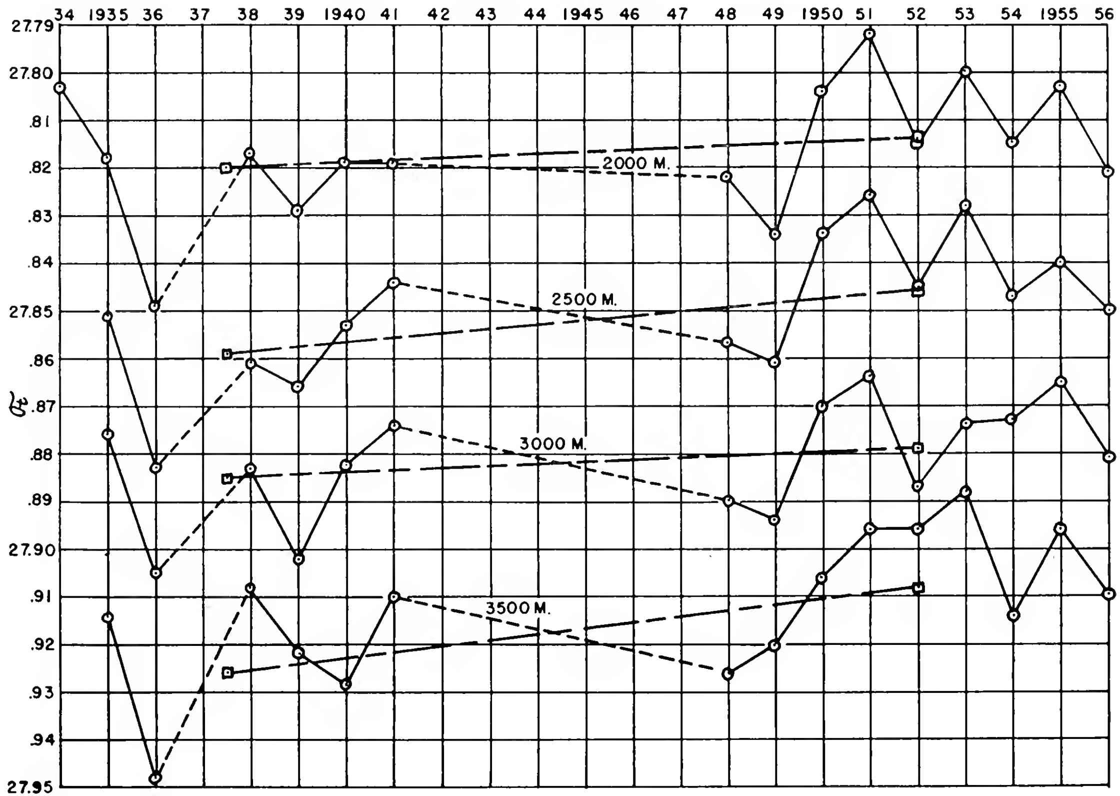

FIGURE 26.—Year to year variations in the density of the deep water of the Labrador Sea as represented by the value of σ_t corresponding to the temperature and salinities plotted in Figure 24.

The volume transport, mean temperature and resulting heat transport for all occupations of the sections across the Labrador Current off South Wolf Island and the West Greenland Current off Cape Farewell that have been considered in our discussions are listed in table 2. For the most part these measurements were made by the International Ice Patrol from the *Marion* in 1928, the *General Greene* 1931 to 1941 and the *Evergreen* 1948 to 1956. Two occupations of the Cape Farewell section, one by the *Godthaab* in 1928 and one by the *Meteor* in 1935, are included. For the section across the Labrador Current off South Wolf Island a tabulation of the minimum observed temperature is included and average values are presented. Averages are not listed for the West Greenland Current since there appears to be seasonal variations in the volume transport of the parent components (Irminger Current and East Greenland Current) having maximum rates of change in the summertime.

Figure 20 shows the dynamic topography in the vicinity of the section from South Wolf Island, Labrador, to Cape Farewell, Greenland found during the 1956 post season cruise. Figures 21 and 22 show the distribution of temperature and salinity along this section for the same occupation. In figure 21 the Labrador Current is to be seen with its characteristic temperature minimum over the shelf and its horizontal temperature gradient above the continental slope. The West Greenland Current also is recognizable from its characteristic cold inshore water and warm offshore band. In the intermediate water of the Labrador Sea the temperature minimum, which is considered to be a relic of the previous winter's cooling, was less pronounced and was warmer than usual. In figure 21 two small areas within which the temperature was less than 3.3 indicate the location of this minimum. In earlier bulletins of this series the different occupations of the section have been described as warm years or cold years according to the temperature found in the minimum and the cross sectional extent of the minimum. By this method the 1956 occupation would be classified as warm along with those of 1940, 41, 48, 49, 51, 52, and 53 while the cold years were 1934, 35, 36, 38, 39, 50, 54 and 55.

An attempt has been made to arrive at a more specific and numerical characterization of the intermediate water by taking the average of all temperatures observed between depths of 450 and 1,750 meters from all stations which lie offshore of the Labrador Current and the warm water of the West Greenland Current for each occupation. For 1956 this would include stations 6325–29. The averages of all the corresponding salinities for each occupation were also computed. These average temperatures have been plotted against their corresponding average salinities in figure 23. Each occupation of the section is thus characterized by a single T–S point. As the intermediate water is assumed to undergo an annual change the time of year should have some effect. In figure 23, however, no discrimination has been made as to date of occupation, although the actual dates of the occupations vary from June to August. There appears to be but little relationship between either temperature or salinity and the date of occupation within this summertime range. The mean date of the post war series of occupations is some 5½ days later than that of the pre war series. The mean T–S points for the periods 1934–41 and 1948–56 have been shown within squares and differ but little in temperature with the salinity lower in the later series.

A similar numerical analysis of the temperature and salinity of the deep water was attempted. Whereas in the intermediate water the remarkable uniformity permitted the grouping of all observations without regard to depth, in the deep water there is a sufficient vertical gradient, especially in temperature, to require a reduction to a common depth. All stations where the observations extended to a depth of 2,000 meters or more were considered, the individual station curves of vertical distribution of temperature and salinity being scaled for values at 2,000, 2,500, 3,000 and 3,500 meters. For each occupation all scaled values for each of these levels were averaged to get the mean temperatures and salinities plotted in figure 24. Near bottom along the section there is a characteristic tendency for the isotherms and isohalines to parallel the bottom. No adjustment has been made for these horizontal gradients. Because of the symmetry of the bottom and the spacing of the stations the shallower levels are less affected but the results in the deeper levels, especially the 3,500-meter level are somewhat erratic from the small number of data and the fortuitous spacing of stations with respect to the 3,500-meter isobath. The average temperatures for the periods 1934–41 and 1948–56, plotted against the corresponding average salinities in figure 25, show about the same salinity at 2,000 meters but for deeper levels show a lower salinity for the later period. In temperature the change is small with an increase at 2,000 meters, little change at 2,500 meters and a decrease at 3,000 meters. The small number of stations extending to 3,500 meters leaves this level doubtful.

The values of σ_t corresponding to average temperature and average salinity for individual occupations of the section are plotted against the year of occupation in figure 26. Again it must be kept in mind that the 3,500-meter level is doubtful because of the small number of data.

As shown in figure 22, the salinity maximum at depths of 150 to 200 meters off Cape Farwell had a value of 35.00°/oo in 1956. This characteristic warm high salinity water in the off-shore part of the West Greenland Current is normally contributed by the Irminger Current. In the 1930's this salinity maximum was remarkably constant at about 35.04°/oo but in 1949 it dropped to 34.97 and has not since attained its pre war value. In 1952, 1954 and 1956 there were indications of a partial return to the earlier situation, with the maximum values of 35.01, 35.00 and 35.00°/oo respectively. The lower salinity values of this maximum have been interpreted as indicating a failure of Irminger Current water to round Cape Farewell. The increase found in 1956 is considered to be a trend toward the restoration of conditions which existed during the 1930's and regarded as the normal situation.

This view is given support by the volume and heat transports of the West Greenland Current at this section. In bulletin 35 of this series normal seasonal variation relationships were published for the parent components (the East Greenland Current and the Irminger Current) based on assumptions that the mean temperature of the East Greenland Current component was constant at 3.2° and the mean temperature of the Irminger Current component was constant at 5.5° and that the seasonal variation in mean temperature of the resultant West Greenland Current was the result of seasonal variations in the volume transports of the parent components. From these normal seasonal variation curves the normal transports for the date of the 1956 occupation would be 2.88 and 1.65 for the Irminger Current and East Greenland Current components. These compare with actual transports of 2.86 and 4.46 respectively, indicating a normal contribution of the Irminger Current component and a contribution by the East Greenland Current about 2-2/3 normal. The total transport, mean temperature and heat transport of the West Greenland Current found in 1956 were 7.32, 4.10 and 30.01 respectively.

The net transport across the entire section from South Wolf Island, Labrador to Cape Farewell, Greenland, was northwestward about 2.54, which is of the same order of magnitude as the positive anomaly of the East Greenland Current contribution.

SUMMARY

1. The three dynamic topographic charts resulting from the season's current surveys have been discussed.

2. A more detailed analysis of the Labrador Current has been made based on the velocity profiles at 18 selected sections occupied during the 1956 season and post season cruises.

3. Mean curves representing the T–S relationship for Labrador Current water, mixed water and Atlantic Current water have been derived for the period 1948–56 and compared with similar curves for the period 1934–41 and the conditions found during 1956 have been compared with the means.

4. Tentative normal seasonal variation relationships have been presented for the volume transport, mean temperature and minimum observed temperature of the Labrador Current at sections F and G, located near the northeastern shoulder of the Grand Banks.

5. The temperature and salinity of the intermediate water of the Labrador Sea have been examined for each of the 16 occupations of the South Wolf Island-Cape Farewell section since 1934. While year to year variations have been large the average temperature for the period 1948–56 was the same as for the period 1934–41 but the salinity has been lower in the later period.

6. Examination of the deep water of the Labrador Sea for the same periods showed a slight warming and freshening at 2,000 meters, an isothermal freshening at 2,500 meters and a freshening accompanied by a cooling at 3,000 meters. The combined effects result in about the same decrease in density at each level.

The data collected in 1956 are tabulated below. The individual station headings give the station number, date, geographical position, depth of water and the dynamic height of the sea surface used in the construction of the dynamic topographic charts shown in fiures 12, 13, 14, 15 and 20. The depths of water are rough approximations, being the uncorrected sonic soundings based on a sounding velocity of 800 fathoms per second and containing an additional mechanical speed error of about 1/60. Where the depths of scaled values are enclosed in parentheses, the data are based on extrapolated vertical distribution curves of temperature or salinity or both. Asterisks apearing before observed temperatures indicate that these temperatures were determined from the depth of reversal and the corrected reading of an unprotected thermometer. The symbol σ_t signifies 1,000 (density–1) at atmospheric pressure and temperature t.

STATIONS OCCUPIED IN 1956

Station 6037; April 1; latitude 42°04′ N., longitude 51°00′ W. depth 3,017 m.; dynamie height 970.930.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	3.96	33.68	0	3.96	33.68	26.76
22	3.94	33.68	25	3.95	33.73	26.80
43	5.14	34.10	50	5.40	34.19	27.00
65	5.70	34.32	75	4.90	34.26	27.12
86	3.46	34.19	100	4.15	34.39	27.30
129	6.12	34.81	150	6.00	34.85	27.46
172	5.76	34.87	200	5.45	34.85	27.52
258	4.42	34.84	300	4.35	34.86	27.66
236	4.93	34.83	400	4.20	34.92	27.73
356	4.27	34.90	600	4.05	34.94	27.75
477	4.12	34.94	800	3.90	34.94	27.77
624	4.02	34.94	1,000	3.75	34.94	27.78
1,040	3.70	34.94				

Station 6038; April 2; latitude 41°56.5′ N., longitude 51°59′ W. depth 3,667 m.; dynamic height 971.151.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	13.75	35.75	0	13.75	35.75	26.84
25	13.78	35.76	25	13.78	35.76	26.84
50	13.82	35.76	50	13.82	35.76	26.83
75	13.78	35.78	75	13.78	35.78	26.85
100	13.72	35.77	100	13.72	35.77	26.86
150	13.78	35.77	150	13.78	35.77	26.84
200	13.45	35.75	200	13.45	35.75	26.90
300	10.41	35.46	300	10.00	35.34	27.23
295	9.50	35.23	400	7.30	35.08	27.46
433	6.64	35.02	600	4.50	34.88	27.65
564	4.73	34.89	800	3.90	34.88	27.72
716	4.00	34.88	1,000	3.75	34.90	27.75
1,116	3.64	34.91				

Station 6039; April 2; latitude 42°10.5′ N., longitude 51°15′ W. depth 3,072 m.; dynamic height 970.915.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	1.56	33.50	0	1.56	33.50	26.83
27	5.81	34.26	25	5.75	34.21	26.98
53	5.60	34.44	50	5.60	34.42	27.17
80	5.69	34.60	75	5.65	34.57	27.28
107	5.66	34.77	100	5.65	34.74	27.41
161	5.75	34.80	150	5.75	34.79	27.44
214	5.32	34.87	200	5.45	34.85	27.52
321	4.27	34.88	300	4.45	34.88	27.66
417	4.42	34.96	400	4.40	34.95	27.72
629	4.22	34.97	600	4.25	34.97	27.76
846	3.88	34.95	800	3.95	34.95	27.77
1,060	3.70	34.94	1,000	3.75	34.94	27.78
1,596	3.37	34.92				

Station 6040; April 2; latitude 42°44′ N., longitude 51°13′ W. depth 1,920 m.; dynamie height 971.012.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	0.42	33.32	0	0.42	33.32	26.75
25	0.35	33.33	25	0.35	33.33	26.76
49	0.30	33.31	50	0.30	33.34	26.77
74	0.21	33.48	75	0.20	33.48	26.89
98	0.31	33.57	100	0.35	33.58	26.96
148	1.33	34.08	150	1.40	34.09	27.31
197	2.01	34.35	200	2.05	34.35	27.47
295	2.47	34.42	300	2.50	34.43	27.49
372	2.85	34.58	400	3.00	34.63	27.61
551	3.56	34.80	600	3.60	34.81	27.70
726	3.61	34.83	800	3.60	34.81	27.72
917	3.61	34.85	1,000	3.60	34.85	27.73
1,412	3.57	34.86				

Station 6041; April 2; latitude 42°53′ N., longitude 50°51′ W. depth 1,042 m.; dynamic height 971.076.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.16	33.12	0	2.16	33.12	26.48
23	0.75	33.28	25	0.65	33.29	26.71
46	0.06	33.34	50	0.10	33.36	26.80
68	0.31	33.49	75	0.35	33.52	26.92
91	0.34	33.57	100	0.35	33.59	26.97
136	0.45	33.70	150	0.60	33.77	27.10
181	0.90	33.92	200	1.05	33.97	27.24
272	1.43	34.14	300	1.55	34.20	27.38
378	2.00	34.37	400	2.15	34.41	27.51
574	3.16	34.67	600	3.30	34.69	27.63
774	3.69	34.82	800	3.70	34.82	27.70
984	3.59	34.84	1,000	3.60	34.84	27.72

Station 6042; April 2; latitude 42°57′ N., longitude 50°47′ W. depth 258 m.; dynamic height 971.066.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.12	33.17	0	2.12	33.17	26.52
25	1.23	33.20	25	1.23	33.20	26.61
50	0.40	33.38	50	0.40	33.38	26.80
75	0.38	33.49	75	0.38	33.49	26.89
100	0.33	33.55	100	0.33	33.55	26.94
150	0.62	33.79	150	0.62	33.79	27.11
200	1.10	34.00	200	1.10	34.00	27.26
244	1.71	34.24				

Station 6043; April 2; latitude 43°01′ N., longitude 50°42′ W. depth 114 m.; dynamic height 971.065.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.45	32.99	0	2.45	32.99	26.35
26	1.69	33.06	25	1.75	33.06	26.46
51	0.62	33.30	50	0.65	33.29	26.71
77	0.38	33.46	75	0.40	33.45	26.86
103	0.55	33.65	100	0.50	33.62	26.99

Station 6044; April 2; latitude 43°05′ N., longitude 50°35′ W.; depth 91 m.; dynamic height 971.083.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.76	32.74	0	2.76	32.74	26.13
26	2.33	32.78	25	2.35	32.77	26.18
51	1.42	33.11	50	1.45	33.09	26.50
77	0.98	33.30	75	1.00	33.28	26.69

Station 6045; April 2; latitude 43°18.5′ N., longitude 50°17′ W.; depth 70 m.; dynamic height 971.091.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.73	32.66	0	2.73	32.66	26.06
28	2.47	32.68	25	2.50	32.67	26.09
55	1.56	33.00	50	1.70	32.94	26.37

Station 6046; April 2; latitude 43°04.5′ N., longitude 50°19′ W.; depth 78 m.; dynamic height 971.068.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	1.77	33.12	0	1.77	33.12	26.51
23	1.41	33.16	25	1.40	33.16	26.56
47	1.18	33.19	50	1.15	33.19	26.61
70	0.68	33.28	75	0.60	33.29	26.71

Station 6047; April 3; latitude 42°51′ N., longitude 50°22′ W.; depth 403 m.; dynamic height 971.010.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.94	33.24	0	0.94	33.24	26.66
25	0.19	33.41	25	0.19	33.41	26.84
49	0.14	33.54	50	0.15	33.54	26.94
74	0.33	33.65	75	0.35	33.65	27.02
99	0.58	33.78	100	0.60	33.78	27.10
148	0.95	34.02	150	1.00	34.04	27.29
197	1.87	34.29	200	1.90	34.30	27.44
296	2.71	34.55	300	2.70	34.56	27.58

Station 6048; April 3; latitude 42°40′ N., longitude 50°23′ W.; depth 1,756 m.; dynamic height 970.931.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.95	33.59	0	0.95	33.59	25.93
25	1.00	33.60	25	1.00	33.60	26.94
50	0.98	33.63	50	0.98	33.63	26.96
75	1.35	33.85	75	1.35	33.85	27.12
100	1.37	34.02	100	1.37	34.02	27.26
150	1.92	34.36	150	1.92	34.36	27.49
200	2.29	34.46	200	2.29	34.46	27.54
300	3.83	34.79	300	3.83	34.79	27.65
393	3.75	34.83	400	3.75	34.83	27.69
593	3.54	34.85	600	3.55	34.85	27.73
796	3.48	34.875	800	3.50	34.87	27.76
998	3.46	34.87	1,000	3.45	34.87	27.76
1,506	3.45	34.89				

Station 6049; April 3; latitude 42°17.5′ N., longitude 50°26′ W.; depth 2,926 m.; dynamic height 970.908.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.24	33.60	0	3.24	33.60	26.77
25	3.04	33.62	25	3.04	33.62	26.81
50	2.65	33.78	50	2.65	33.78	26.96
75	1.71	33.96	75	1.71	33.96	27.18
100	2.94	34.31	100	2.94	34.31	27.36
150	3.60	34.60	150	3.60	34.60	27.53
199	4.03	34.76	200	4.05	34.76	27.61
299	4.60	34.94	300	4.60	34.94	27.69
406	4.56	34.98	400	4.60	34.98	27.72
604	4.25	34.99	600	4.25	34.99	27.77
797	3.64	34.92	800	3.65	34.92	27.78
998	3.54	34.92	1,000	3.55	34.92	27.79
1,505	3.48	34.92				

Station 6050; April 3; latitude 41°50.5′ N., longitude 50°22′ W.; depth 3,749 m.; dynamic height 970.938.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.96	33.56	0	2.96	33.56	26.76
25	2.07	33.61	25	2.07	33.61	26.89
50	1.32	33.83	50	1.32	33.83	27.10
75	1.34	34.00	75	1.34	34.00	27.24
99	2.36	34.21	100	2.40	34.21	27.33
149	4.76	34.66	150	4.75	34.66	27.46
199	4.28	34.69	200	4.30	34.69	27.53
298	4.86	34.90	300	4.85	34.90	27.63
400	3.60	34.78	400	3.65	34.78	27.66
600	4.01	34.90	600	4.00	34.90	27.73
800	4.15	34.97	800	4.20	34.97	27.77
1,003	3.65	34.91	1,000	3.65	34.91	27.77
1,513	3.43	34.91				

Station 6051; April 3; latitude 41°25′ N., longitude 50°19′ W.; depth 3,749 m.; dynamic height 971.160.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	13.12	35.635	0	13.12	35.635	26.88
25	13.00	35.62	25	13.00	35.62	26.89
50	12.97	35.62	50	12.97	35.62	26.89
75	------	35.62	75	12.90	35.62	26.91
100	12.53	35.52	100	12.53	35.52	26.91
150	8.80	34.82	150	8.80	34.82	27.03
200	9.60	34.97	200	9.60	34.97	27.02
300	10.39	35.31	300	10.39	35.31	27.15
378	8.56	35.12	400	8.10	35.08	27.34
569	5.22	34.90	600	5.00	34.90	27.62
760	4.35	34.92	800	4.20	34.91	27.72
955	3.62	34.87	1,000	3.65	34.88	27.74
1,453	3.81	34.95				

Station 6052; April 3; latitude 41°00′ N., longitude 50°15′ W.; depth 3,566 m.; dynamic height 971.255.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.88	35.88	0	14.88	35.88	26.69
27	14.87	35.88	25	14.85	35.88	26.70
53	14.61	35.83	50	14.65	35.84	26.71
80	13.83	35.73	75	13.95	35.74	26.78
106	13.63	35.73	100	13.65	35.73	26.84
160	13.64	35.74	150	13.65	35.74	26.85
213	12.24	35.43	200	12.55	35.51	26.90
319	11.69	35.45	300	11.80	35.45	27.00
356	7.91	34.73	400	6.05	34.56	27.22
532	3.75	34.40	600	4.25	34.61	27.47
709	*5.05	34.985	800	4.75	34.99	27.71
885	4.51	34.99	1,000	4.30	34.98	27.75
1,323	3.87	34.955				

Station 6053; April 4; latitude 41°58.5′ N., longitude 49°18′ W.; depth 2,926 m.; dynamic height 971.051.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.59	35.12	0	11.59	35.12	26.78
26	10.79	34.98	25	10.80	34.99	26.82
51	7.14	34.43	50	7.15	34.44	26.98
76	6.60	34.42	75	6.60	34.42	27.04
101	6.28	34.36	100	6.30	34.36	27.03
152	4.60	34.20	150	4.65	34.20	27.10
203	4.96	34.42	200	4.95	34.41	27.24
304	5.00	34.64	300	5.00	34.63	27.40
373	5.42	34.89	400	5.25	34.89	27.58
559	4.32	34.875	600	4.20	34.87	27.69
744	3.90	34.86	800	3.85	34.86	27.71
942	3.69	34.88	1,000	3.65	34.88	27.74
1,454	3.45	34.885				

Station 6054; April 4; latitude 41°33′ N., longitude 48°47′ W.; depth 3,274 m.; dynamic height 971.179.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.16	35.295	0	12.16	35.295	26.81
25	12.13	35.295	25	12.13	35.295	26.81
50	12.08	35.29	50	12.08	35.29	26.82
75	12.12	35.30	75	12.12	35.30	26.82
101	12.02	35.30	100	12.00	35.30	26.84
150	12.14	35.38	150	12.15	35.38	26.87
201	12.18	35.40	200	12.15	35.40	26.89
302	10.10	35.26	300	10.20	35.26	27.14
429	6.80	34.89	400	7.50	34.97	27.35
641	4.38	34.87	600	4.60	34.87	27.64
851	4.06	34.91	800	4.10	34.90	27.72
1,067	3.73	34.91	1,000	3.80	34.91	27.76
1,610	3.56	34.93				

Station 6055; April 4; latitude 40°58.5′ N., longitude 48° 31′ W.; depth 3,255 m.; dynamic height 971.145.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	11.80	35.14	0	11.80	35.14	26.76
25	11.80	35.20	25	11.80	35.20	26.80
49	11.91	35.29	50	11.90	35.24	26.81
74	12.29	35.40	75	12.25	35.40	26.87
98	11.87	35.32	100	11.80	35.31	26.89
147	11.00	35.14	150	10.95	35.13	26.90
196	10.21	35.12	200	10.15	35.12	27.04
294	9.17	35.14	300	9.10	35.13	27.22
381	7.39	34.965	400	7.15	34.97	27.40
571	5.26	34.97	600	5.10	34.97	27.66
761	4.46	34.97	800	4.45	34.97	27.74
961	4.26	34.98	1,000	4.25	34.98	27.76
1,461	3.65	34.94				

Station 6056; April 4; latitude 41°35.5′ N., longitude 40°17′ W.; depth 4,298 m.; dynamic height 971.276.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	14.59	35.85	0	14.59	35.85	26.74
26	14.38	35.80	25	15.35	35.80	26.75
51	14.20	35.76	50	14.20	35.76	26.75
76	14.17	35.75	75	14.15	35.75	26.75
101	14.12	35.74	100	14.10	35.74	26.75
153	13.85	35.72	150	13.85	35.72	26.79
204	12.83	35.50	200	12.90	35.52	26.84
305	11.91	35.50	300	11.95	35.50	27.01
429	9.54	35.24	400	10.20	35.31	27.18
637	5.91	34.975	600	6.35	35.00	27.53
842	4.78	34.98	800	5.00	34.98	27.68
1,055	3.96	34.92	1,000	4.15	34.93	27.73
1,593	3.57	34.91				

Station 6057; April 5; latitude 41°58.5′ N., longitude 47°54′ W.; depth 3,768 m.; dynamic height 970.986.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	4.25	33.65	0	4.25	33.65	26.71
26	4.12	33.63	25	4.15	33.63	26.70
52	3.37	33.62	50	3.40	33.62	26.77
78	3.51	33.78	75	3.50	33.76	26.87
104	3.14	33.90	100	3.15	33.88	26.99
155	5.04	34.50	150	5.00	34.46	27.27
206	4.35	34.59	200	4.40	34.58	27.43
310	4.46	34.81	300	4.45	34.79	27.59
397	4.48	34.905	400	4.50	34.91	27.68
606	3.91	34.92	600	3.95	34.92	27.75
821	3.65	34.91	800	3.65	34.90	27.76
1,030	3.55	34.89	1,000	3.55	34.89	27.76
1,556	3.44	34.92				

Station 6058; April 5; latitude 42°21′ N., longitude 48°30′ W.; depth 3,383 m.; dynamic height 970.949.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	3.13	33.48	0	3.13	33.48	26.68
24	2.66	33.50	25	2.65	33.50	26.74
49	2.81	33.74	50	2.80	33.74	26.92
73	2.19	33.80	75	2.20	33.81	27.02
97	3.53	34.18	100	3.50	34.19	27.21
146	2.29	34.24	150	2.40	34.25	27.36
195	4.90	34.71	200	4.90	34.72	27.49
292	4.08	34.80	300	4.10	34.81	27.65
387	4.33	34.91	400	4.35	34.92	27.71
583	4.21	34.95	600	4.20	34.95	27.75
782	3.84	34.93	800	3.80	34.93	27.77
986	3.57	34.91	1,000	3.55	34.91	27.78
1,510	3.37	34.92				

Station 6059; April 5; latitude 42°41′ N., longitude 49°10′ W.; depth 2,488 m.; dynamic height 970.890.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	3.15	33.64	0	3.15	33.64	26.81
24	2.68	33.81	25	2.65	33.81	26.99
49	2.05	33.92	50	2.05	33.93	27.13
73	2.44	34.19	75	2.45	34.21	27.32
98	2.82	34.37	100	2.85	34.38	27.42
147	3.43	34.62	150	3.45	34.62	27.56
195	3.99	34.77	200	4.05	34.78	27.62
293	4.22	34.88	300	4.20	34.88	27.69
393	4.05	34.91	400	4.05	34.91	27.73
588	3.75	34.91	600	3.75	34.91	27.76
782	3.50	34.90	800	3.50	34.90	27.78
981	3.42	34.88	1,000	3.40	34.885	27.78
1,483	3.34	34.90				

Station 6060; April 5; latitude 43°21′ N., longitude 48°53′ W.; depth 2,012 m.; dynamic height 970.886.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	3.80	33.80	0	3.80	33.80	26.87
25	1.97	33.99	25	1.97	33.99	27.19
50	2.25	34.14	50	2.25	34.14	27.28
75	2.53	34.33	75	2.53	34.33	27.41
99	2.70	34.40	100	2.70	34.40	27.45
149	2.98	34.52	150	3.00	34.52	27.53
199	3.47	34.64	200	3.50	34.64	27.57
298	3.78	34.84	300	3.80	34.84	27.70
401	3.63	34.86	400	3.65	34.86	27.73
601	3.48	34.865	600	3.50	34.86	27.75
801	3.42	34.87	800	3.45	34.87	27.76
1,003	3.39	34.88	1,000	3.40	34.88	27.77
1,510	3.38	34.89				

Station 6061; April 5; latitude 43°06′ N., longitude 48°09′ W.; depth 3,200 m.; dynamic height 970.927.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	4.40	33.75	0	4.40	33.75	26.77
25	4.31	33.76	25	4.31	33.76	26.79
50	4.14	33.82	50	4.14	33.82	26.85
75	3.36	33.92	75	3.36	33.92	27.01
100	3.58	34.26	100	3.58	34.26	27.26
150	4.94	34.63	150	4.94	34.63	27.40
200	5.11	34.81	200	5.11	34.81	27.54
300	4.79	34.93	300	4.79	34.93	27.66
385	*4.26	34.99	400	4.25	34.99	27.77
518	3.99	34.95	600	4.00	34.95	27.77
781	3.85	34.95	800	3.85	34.95	27.78
980	3.68	34.93	1,000	3.65	34.93	27.78
1,484	3.39	34.925				

Station 6062; April 5; latitude 42°51′ N., longitude 47°32′ W.; depth 3,841 m.; dynamic height 970.953.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	4.44	33.68	0	4.44	33.68	26.71
23	4.26	33.68	25	4.25	33.68	26.73
47	4.24	33.72	50	4.25	33.73	26.77
70	4.28	33.79	75	4.20	33.82	26.85
93	3.34	33.93	100	3.35	34.00	27.08
140	3.50	34.41	150	3.55	34.46	27.42
186	3.93	34.64	200	4.10	34.69	27.55
279	4.41	34.86	300	4.40	34.88	27.66
387	4.34	34.92	400	4.30	34.92	27.71
579	4.01	34.92	600	4.00	34.92	27.75
770	3.77	34.915	800	3.80	34.92	27.77
967	3.79	34.94	1,000	3.80	34.94	27.78
1,468	3.51	34.93				

Station 6063; April 6; latitude 42°37′ N., longitude 46°55′ W.; depth 4,061 m.; dynamic height 971.199.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	14.30	35.77	0	14.30	35.77	26.74
25	14.35	35.78	25	14.35	35.78	26.74
52	14.37	35.79	50	14.40	35.79	26.73
77	14.15	35.74	75	14.15	35.75	26.75
103	13.33	35.595	100	13.40	35.61	26.80
154	12.72	35.50	150	12.75	35.51	26.86
206	11.67	35.33	200	11.80	35.35	26.92
309	9.61	35.11	300	9.80	35.14	27.11
393	6.91	34.82	400	6.80	34.82	27.33
586	5.10	34.90	600	5.05	34.90	27.61
778	4.27	34.93	800	4.25	34.93	27.72
974	4.02	34.935	1,000	4.00	34.93	27.75
1,468	3.62	34.925				

Station 6064; April 6; latitude 42°21′ N., longitude 46°13′ W.; depth 4,645 m.; dynamic height 971.485.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	15.46	36.05	0	15.46	36.05	26.70
23	15.45	36.055	25	15.45	36.06	26.70
47	15.43	36.06	50	15.40	36.06	26.71
70	15.34	36.08	75	15.30	36.08	26.75
93	15.30	36.08	100	15.25	36.08	26.76
140	15.21	36.08	150	15.20	36.08	26.77
186	15.22	36.09	200	15.20	36.09	26.79
279	15.13	36.105	300	15.15	36.11	26.81
351	15.11	36.11	400	14.55	35.99	26.85
544	11.76	35.50	600	10.55	35.32	27.13
749	7.41	35.045	800	6.85	35.05	27.50
952	5.75	35.10	1,000	5.50	35.09	27.70
1,485	3.82	34.935				

Station 6065; April 6; latitude 42°41.5′ N., longitude 45°52′ W.; depth 4,763 m.; dynamic height 971.500.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	14.95	36.11	0	14.95	36.11	26.86
24	15.08	36.10	25	15.05	36.10	26.82
48	15.07	36.11	50	15.05	36.11	26.83
72	15.10	36.105	75	15.10	36.11	26.82
96	15.11	36.105	100	15.10	36.11	26.82
145	15.10	36.11	150	15.10	36.11	26.82
193	15.10	36.12	200	15.10	36.12	26.83
289	15.09	36.12	300	15.10	36.12	26.83
370	15.01	36.11	400	14.80	36.07	26.87
565	12.24	35.60	600	11.55	35.50	27.08
768	8.27	35.15	800	7.80	35.12	27.42
978	5.83	35.065	1,000	5.70	35.06	27.66
1,533	4.18	35.02				

Station 6066; April 6; latitude 43°06′ N., longitude 45°26′ W.; depth 4,755 m.; dynamic height 971.509.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	15.07	36.08	0	15.07	36.08	26.80
26	15.08	36.08	25	15.05	36.08	26.80
52	15.08	36.09	50	15.05	36.09	26.82
78	15.10	36.10	75	15.05	36.09	26.82
103	15.07	36.09	100	15.05	36.09	26.82
156	15.09	36.09	150	15.10	36.09	26.81
208	15.11	36.09	200	15.10	36.09	26.81
311	15.12	36.10	300	15.10	36.10	26.82
318	15.13	36.10	400	14.45	35.94	26.84
496	13.11	35.69	600	11.15	35.42	27.10
689	9.48	35.24	800	7.60	35.08	27.41
881	6.51	35.02	1,000	5.50	34.97	27.61
1,393	3.84	34.91				

Station 6067; April 6; latitude 43°19′N., longitude 46°03′ W.; depth 4,755 m.; dynamic height 971.323.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	14.73	35.89	0	14.73	35.89	26.74
25	14.74	35.89	25	14.74	35.89	26.73
50	14.74	35.90	50	14.74	35.90	26.74
75	14.68	35.87	75	14.68	34.87	26.73
100	14.50	35.80	100	14.50	35.84	26.74
150	13.99	35.75	150	13.99	35.75	26.78
200	13.55	35.66	200	13.55	35.66	26.81
300	12.83	35.64	300	12.83	35.64	26.95
329	12.62	35.60	400	11.00	35.39	27.10
506	8.67	35.11	600	7.40	35.07	27.44
693	6.43	35.055	800	5.55	35.04	27.66
883	5.02	35.02	1,000	4.55	35.00	27.75
1,389	3.82	34.94				

Station 6068; April 7; latitude 43°27.5′ N., longitude 46°33′ W.; depth 4,481 m.; dynamic height 971.178.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	13.61	35.60	0	13.61	35.60	26.75
27	13.64	35.61	25	13.60	35.61	26.76
54	13.70	35.62	50	13.70	35.62	26.75
82	13.56	35.69	75	13.60	35.68	26.81
108	13.29	35.67	100	13.40	35.68	26.85
163	------	34.59	150	9.15	34.85	27.00
217	9.04	34.78	200	8.85	34.79	27.00
325	8.19	34.91	300	8.40	34.88	27.13
439	7.15	35.02	400	7.50	34.99	27.36
658	4.49	34.89	600	5.15	34.91	27.61
879	4.33	34.96	800	4.40	34.94	27.71
1,102	3.84	34.92	1,000	4.15	34.94	27.74
1,666	3.52	34.92				

Station 6069; April 7; latitude 43°37′ N., longitude 47°06 W.; depth 4,298 m.; dynamic height 971.024.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	4.60	33.86	0	4.60	33.86	26.84
25	4.77	33.89	25	4.77	33.89	26.84
50	6.19	34.23	50	6.19	34.23	26.94
75	8.22	34.69	75	8.22	34.69	27.02
100	8.53	34.78	100	8.53	34.78	27.04
149	8.54	34.86	150	8.55	34.86	27.10
199	6.06	34.635	200	6.05	34.64	27.28
299	4.68	34.64	300	4.70	34.64	27.44
399	4.58	34.84	400	4.55	34.84	27.62
601	4.03	34.915	600	4.05	34.91	27.73
805	3.79	34.905	800	3.80	34.90	27.75
1,012	3.69	34.91	1,000	3.70	34.91	27.77
1,540	3.42	34.90				

Station 6070; April 7; latitude 43°53′ N., longitude 48°00′ W.; depth 3,741 m.; dynamic height 971.052.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	9.44	35.00	0	9.44	35.00	27.07
26	9.44	35.00	25	9.45	35.00	27.06
52	9.42	35.00	50	9.40	35.00	27.07
78	9.37	34.99	75	9.35	34.99	27.07
103	9.39	34.99	100	9.35	34.99	27.07
156	9.44	35.01	150	9.40	35.01	27.08
208	9.59	35.06	200	9.55	35.05	27.08
311	7.95	35.04	300	8.20	35.04	27.29
366	5.67	34.88	400	5.35	34.89	27.56
553	4.62	34.96	600	4.50	34.96	27.72
745	4.17	34.945	800	4.10	34.95	27.76
943	3.92	34.95	1,000	3.85	34.95	27.78
1,459	3.49	34.91				

Station 6071; April 7; latitude 44°04′ N., longitude 48°37′ W.; depth 3,155 m.; dynamic height 970.919.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	3.52	33.88	0	3.52	33.88	26.95
26	3.51	33.88	25	3.50	33.88	26.96
52	3.23	33.92	50	3.25	33.91	27.01
78	2.93	34.08	75	2.95	34.05	27.15
103	3.10	34.20	100	3.10	34.18	27.24
156	2.84	34.48	150	2.85	34.47	27.50
208	3.83	34.625	200	3.75	34.61	27.52
311	3.86	34.82	300	3.85	34.80	27.66
400	3.76	34.86	400	3.75	34.86	27.72
601	3.51	34.87	600	3.50	34.87	27.76
804	3.45	34.875	800	3.45	34.87	27.76
1,011	3.41	34.885	1,000	3.40	34.88	27.77
1,536	3.37	34.90				

Station 6072; April 7; latitude 44°07.5′ N., longitude 48°51′ W.; depth 1,618 m.; dynamic height 970.873.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	2.29	33.88	0	2.29	33.88	27.07
25	1.56	34.14	25	1.56	34.14	27.33
50	2.05	34.38	50	2.05	34.38	27.49
76	2.24	34.47	75	2.20	34.47	27.56
101	3.02	34.60	100	3.00	34.60	27.59
151	2.76	34.58	150	2.75	34.58	27.59
201	2.73	34.60	200	2.75	34.60	27.61
302	3.66	34.78	300	3.65	34.78	27.66
396	3.75	34.87	400	3.75	34.87	27.73
596	3.70	34.86	600	3.70	34.86	27.73
798	3.58	34.88	800	3.60	34.88	27.75
1,004	3.48	34.88	1,000	3.50	34.88	27.76
1,528	3.45	34.88				

Station 6073; April 7; latitude 44°09.5′ N., longitude 48°58′ W.; depth 640 m.; dynamic height 970.942.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	3.77	33.95	0	3.77	33.95	26.99
25	3.65	33.96	25	3.65	33.96	27.01
50	3.32	33.94	50	3.32	33.94	27.03
74	1.30	34.00	75	1.30	34.00	27.24
99	1.36	34.22	100	1.35	34.22	27.42
148	2.24	34.42	150	2.25	34.42	27.51
198	2.41	34.48	200	2.40	34.48	27.54
297	2.84	34.56	300	2.85	34.56	27.57
356	2.93	34.62	400	3.15	34.67	27.63
499	3.52	34.76	(600)	3.60	34.82	27.71

Station 6074; April 7; latitude 44°11′ N., longitude 49°05′ W.; depth 155 m.; dynamic height 971.001.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	0.09	33.36	0	0.09	33.36	26.80
24	−0.29	33.34	25	−0.30	33.34	26.80
48	0.35	33.72	50	0.35	33.73	27.08
71	0.38	33.75	75	0.40	33.75	27.10
95	0.46	33.75	100	0.50	33.76	27.10
142	0.51	33.78	150	0.50	33.79	27.12

Station 6075; April 8; latitude 44°13.5′ N., longitude 49°13′ W.; depth 247 m.; dynamic height 971.033.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	0.47	33.24	0	0.47	33.24	26.69
25	0.46	33.25	25	0.46	33.25	26.69
50	0.44	33.26	50	0.44	33.26	26.70
75	0.30	33.28	75	0.30	33.28	26.73
100	0.09	33.315	100	0.09	33.315	26.76
150	0.06	33.31	150	0.06	33.31	26.76
			(200)	0.05	33.32	26.77

Station 6076; April 8; latitude 44°15.5′ N., longitude 49°22′ W.; depth 48 m.; dynamic height 971.032.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	0.74	33.30	0	0.74	33.30	26.71
25	0.56	33.27	25	0.56	33.27	26.70
40	0.51	33.28				

Station 6077; April 8; latitude 44°54′ N., longitude 49°24 W.; depth 82 m.; dynamic height 971.036.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	0.16	33.19	0	0.16	33.19	26.66
25	0.16	33.18	25	0.16	33.18	26.65
51	−0.14	33.26	50	−0.15	33.26	26.73
66	−0.14	33.26	(75)	−0.15	33.26	26.73

Station 6078; April 8; latitude 44°51.5′ N.,longitude 49°10′ W.; depth 88 m.; dynamic height 971.035.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	−0.02	33.18	0	−0.02	33.18	26.66
26	−0.05	33.18	25	−0.05	33.18	26.66
51	−0.27	33.28	50	−0.25	33.28	26.74
77	−0.27	33.31	75	−0.25	33.31	26.77

Station 6079; April 8; latitude 44°49.5′ N., longitude 48°58′ W.; depth 823 m.; dynamic height 971.008.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	−0.37	33.17	0	−0.37	33.17	26.66
21	−0.40	33.15	25	−0.40	33.18	26.68
43	−0.46	33.44	50	−0.35	33.56	26.98
64	0.20	33.68	75	0.30	33.70	27.06
86	0.34	33.71	100	0.40	33.73	27.08
128	0.53	33.79	150	0.65	33.88	27.18
171	0.79	33.98	200	1.15	34.10	27.33
257	1.82	34.30	300	2.15	34.39	27.49
338	2.39	34.47	400	2.90	34.60	27.60
500	3.57	34.77	(600)	3.60	34.82	27.71

STATIONS OCCUPIED IN 1956—Continued

Station 6080; April 8; latitude 44°47.5′ N., longitude 48°44′ W.; depth 1,829 m.; dynamie height 970.897.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.84	33.98	0	3.84	33.98	27.01
23	3.83	33.98	25	3.85	33.98	27.01
46	3.73	34.07	50	3.70	34.11	27.13
69	3.70	34.32	75	3.70	34.35	27.32
92	3.78	34.44	100	3.85	34.48	27.41
138	4.48	34.68	150	4.60	34.72	27.52
185	4.76	34.82	200	4.75	34.83	27.59
277	4.29	34.87	300	4.20	34.88	27.69
388	4.03	34.90	400	4.00	34.90	27.73
582	3.81	34.90	600	3.80	34.90	27.75
777	3.71	34.915	800	3.70	34.91	27.77
975	3.49	34.89	1,000	3.50	34.89	27.77
1,477	3.36	34.91				

Station 6081; April 8; latitude 44°45′ N., longitude 48°30′ W.; depth 2,488 m.; dynamie height 970.910.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.98	34.01	0	3.98	34.01	27.02
25	3.97	34.01	25	3.97	34.01	27.02
50	3.98	34.02	50	3.98	34.02	27.03
74	3.80	34.06	75	3.80	34.06	27.08
99	3.64	34.24	100	3.65	34.25	27.25
148	4.80	34.70	150	4.80	34.70	27.48
198	4.53	34.78	200	4.50	34.78	27.57
297	4.22	34.88	300	4.20	34.88	27.69
340	3.90	34.86	400	3.85	34.88	27.72
519	3.84	34.92	600	3.80	34.92	27.77
705	3.70	34.91	800	3.55	34.90	27.77
891	3.49	34.89	1,000	3.45	34.90	27.78
1,375	3.38	34.91				

Station 6082; April 8; latitude 44°39′ N., longitude 47°54′ W.; depth 3,383 m.; dynamie height 970.909.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.57	33.97	0	3.57	33.97	27.03
25	3.58	33.97	25	3.58	33.97	27.03
49	3.22	34.04	50	3.20	34.04	27.12
74	2.86	34.13	75	2.85	34.13	27.22
99	2.57	34.27	100	2.55	34.27	27.37
147	3.17	34.46	150	3.20	34.47	27.47
196	4.45	34.78	200	4.50	34.79	27.58
295	4.65	34.925	300	4.65	34.92	27.68
331	------	34.91	400	4.40	34.91	27.69
507	4.03	34.93	600	3.90	34.93	27.76
689	3.80	34.93	800	3.75	34.93	27.77
877	3.70	34.93	1,000	3.65	34.93	27.78
1,371	3.46	34.92				

Station 6083; April 8; latitude 44°34′ N., longitude 47°21, W.; depth 3,841 m.; dynamie height 970.963.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.62	33.98	0	4.62	33.98	26.93
26	4.60	33.99	25	4.60	33.99	26.94
52	4.58	34.00	50	4.60	34.00	26.95
78	4.39	34.01	75	4.40	34.01	26.98
104	4.96	34.28	100	4.90	34.23	27.09
157	5.30	34.60	150	5.30	34.57	27.32
209	4.63	34.66	200	4.70	34.65	27.45
313	4.61	34.86	300	4.60	34.83	27.60
364	5.09	35.00	400	4.90	34.98	27.69
556	4.16	34.94	600	4.05	34.93	27.74
758	3.78	34.91	800	3.75	34.91	27.76
965	3.57	34.91	1,000	3.55	34.91	27.78
1,513	3.36	34.90				

Station 6084; April 9; latitude 44°29′ N., longitude 46°42′ W.; depth 3,932 m.; dynamie height 970.992.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.88	34.31	0	6.88	34.31	26.92
23	7.33	34.38	25	7.30	34.38	26.91
46	7.05	34.40	50	7.00	34.40	26.97
69	6.67	34.44	75	6.75	34.46	27.05
93	7.14	34.60	100	7.05	34.60	27.12
138	6.61	34.54	150	6.70	34.60	27.16
185	7.16	34.82	200	6.85	34.81	27.31
278	4.91	34.76	300	4.95	34.79	27.53
381	5.08	34.95	400	5.05	34.95	27.65
574	4.45	34.975	600	4.40	34.97	27.74
772	4.08	34.97	800	4.05	34.96	27.77
976	3.73	34.935	1,000	3.70	34.93	27.78
1,504	3.45	34.925				

Station 6085; April 9; latitude 44°24′ N., longitude 46°02′ W.; depth 3,841 m.; dynamie height 971.009.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.65	34.04	0	5.65	34.04	26.86
27	6.24	34.17	25	6.20	34.16	26.89
53	6.81	34.36	50	6.75	34.34	26.95
80	6.65	34.35	75	6.70	34.36	26.98
106	5.34	34.25	100	5.70	34.27	27.04
160	8.55	34.92	150	8.10	34.81	27.13
214	4.21	34.40	200	5.30	34.53	27.28
320	4.02	34.68	300	4.05	34.62	27.50
420	4.86	34.925	400	4.80	34.90	27.64
628	4.32	34.96	600	4.45	34.96	27.73
835	3.62	34.89	800	3.70	34.90	27.76
1,047	3.72	34.92	1,000	3.70	34.91	27.77
1,585	3.40	34.92				

Station 6086; April 9; latitude 44°18.5′ N., longitude 45°15′ W.; depth 4,298 m.; dynamie height 971.093.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.82	34.90	0	9.82	34.90	26.93
22	9.76	34.88	25	9.75	34.88	26.92
44	9.68	34.865	50	9.65	34.87	26.93
66	9.64	34.87	75	9.60	34.86	26.93
88	9.53	-------	100	9.30	34.83	26.95
132	8.45	34.735	150	8.65	34.80	27.04
176	9.02	34.91	200	9.15	35.00	27.11
264	9.26	35.14	300	8.50	35.07	27.27
312	8.17	35.04	400	6.60	34.99	27.48
479	5.64	34.97	600	4.95	34.97	27.68
654	4.67	34.965	800	4.10	34.95	27.76
844	4.00	-------	1,000	3.85	34.94	27.77
1,360	3.55	34.91				

Station 6087; April 9; latitude 44°48.5′ N., longitude 45°13′ W.; depth 4,207 m.; dynamie height 971.031.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.27	33.92	0	5.27	33.92	26.81
29	5.94	34.08	25	5.80	34.04	26.84
58	8.86	34.70	50	8.05	34.54	26.92
87	5.44	34.17	75	7.00	34.40	26.97
115	9.07	34.90	100	7.20	34.44	26.97
173	9.42	35.09	150	9.40	35.04	27.10
231	7.15	34.90	200	8.35	35.00	27.24
346	5.27	34.85	300	5.75	34.86	27.50
412	5.07	34.905	400	5.10	34.89	27.59
626	4.50	34.98	600	4.55	34.98	27.73
845	3.93	34.94	800	4.05	34.95	27.76
1,066	3.43	34.88	1,000	3.55	34.89	27.76
1,632	3.31	34.895				

STATIONS OCCUPIED IN 1956—Continued

Station 6088; April 9; latitude 45°15.5′ N., longitude 45°15′ W.; depth 4,207 m.; dynamic height 970.919.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.26	34.08	0	4.26	34.08	27.05
25	3.97	34.14	25	3.97	34.14	27.13
50	3.80	34.16	50	3.80	34.16	27.16
76	3.61	34.24	75	3.60	34.24	27.24
101	3.32	34.25	100	3.30	34.25	27.28
151	3.59	34.41	150	3.55	34.41	27.38
202	5.36	34.83	200	5.30	34.82	27.52
303	4.71	34.90	300	4.75	34.90	27.64
402	3.96	34.88	400	4.00	34.88	27.71
602	4.13	34.95	600	4.10	34.95	27.76
802	3.89	34.94	800	3.90	34.94	27.77
1,003	3.64	34.92	1,000	3.65	34.92	27.78
1,508	3.31	34.90				

Station 6089; April 9; latitude 45°17.5′ N., longitude 46°01′ W.; depth 3,658 m.; dynamic height 970.918.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.43	34.10	0	4.43	34.10	27.04
25	4.24	34.10	25	4.24	34.10	27.07
49	3.57	34.07	50	3.55	34.07	27.12
74	3.27	34.10	75	3.30	34.10	27.16
98	2.73	34.14	100	2.75	34.14	27.24
147	4.44	34.56	150	4.40	34.56	27.42
196	3.54	34.54	200	3.55	34.55	27.49
294	5.01	34.95	300	5.00	34.95	27.66
314	4.92	34.955	400	4.55	34.96	27.72
467	4.33	34.965	600	4.00	34.94	27.76
618	3.95	34.94	800	3.60	34.91	27.78
793	3.63	34.91	1,000	3.50	34.90	27.78
1,269	3.32	34.89				

Station 6090; April 10; latitude 45°18.5′ N., longitude 46°42′ W.; depth 3,383 m.; dynamic height 971.025.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.53	34.00	0	5.53	34.00	26.84
24	5.52	34.02	25	5.50	34.03	26.86
49	5.68	34.09	50	5.70	34.09	26.89
73	5.76	34.16	75	5.85	34.20	26.96
97	9.24	34.96	100	9.00	34.93	27.08
145	5.04	34.50	150	5.00	34.50	27.30
194	4.84	34.58	200	4.85	34.59	27.39
291	5.01	34.86	300	4.90	34.85	27.59
320	4.75	34.86	400	4.80	34.88	27.62
479	4.70	34.98	600	4.45	34.88	27.66
639	4.34	34.98	800	3.95	34.84	27.68
817	3.90	34.94	1,000	3.65	34.82	27.70
1,295	3.32	34.89				

Station 6091; April 10; latitude 45°19.5′ N., longitude 47°27′ W.; depth 2,780 m.; dynamic height 970.971.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.65	33.81	0	4.65	33.81	26.79
25	4.55	33.805	25	4.55	33.805	26.79
49	4.91	34.04	50	4.90	34.05	26.96
74	4.83	34.17	75	4.80	34.17	27.06
98	4.39	34.21	100	4.40	34.22	27.15
147	5.73	34.60	150	5.70	34.60	27.29
196	4.54	34.60	200	4.55	34.60	27.31
294	5.02	34.90	300	5.00	34.91	27.63
375	4.83	34.95	400	4.75	34.95	27.68
562	4.25	34.95	600	4.15	34.95	27.75
748	3.90	34.94	800	3.85	34.94	27.77
942	3.69	34.925	1,000	3.65	34.92	27.78
1,442	3.41	34.915				

Station 6092; April 10; latitude 45°33′ N., longitude 47°48′ W.; depth 1,646 m.; dynamic height 970.930.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.26	33.89	0	4.26	33.89	26.89
23	4.29	34.06	25	4.25	34.06	27.04
46	3.89	34.03	50	3.85	34.03	27.05
69	3.83	34.07	75	3.80	34.09	27.10
92	3.81	34.16	100	3.90	34.23	27.20
138	4.53	34.54	150	4.15	34.56	27.44
184	3.34	34.59	200	3.20	34.59	27.56
276	2.87	34.61	300	3.00	34.63	27.61
313	3.08	34.65	400	3.50	34.79	27.69
481	3.65	34.87	600	3.50	34.86	27.75
656	3.50	34.86	800	3.45	34.87	27.76
835	3.45	34.87	1,000	3.45	34.87	27.76
1,311	3.38	34.885				

Station 6093; April 10; latitude 45°44′ N., longitude 48°05′ W.; depth 630 m.; dynamic height 970.959.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.56	33.46	0	0.56	33.46	26.86
25	0.39	33.76	25	0.39	33.76	27.11
50	0.34	33.81	50	0.34	33.81	27.15
74	0.35	33.90	75	0.35	33.91	27.23
99	0.66	34.00	100	0.65	34.01	27.29
148	1.66	34.22	150	1.70	34.23	27.39
197	1.95	34.30	200	1.95	34.30	27.44
296	2.50	34.49	300	2.50	34.50	27.55
329	2.67	34.555	400	3.20	34.70	27.65
534	3.64	34.80	(600)	3.65	34.82	27.70

Station 6094; April 10; latitude 45°49′ N., longitude 48°13′ W.; depth 174 m.; dynamic height 971.011.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.13	33.08	0	−0.13	33.08	26.58
25	−0.63	33.38	25	−0.63	33.38	26.84
50	−0.36	33.50	50	−0.36	33.50	26.93
75	0.12	33.63	75	0.12	33.63	27.01
101	0.05	33.68	100	0.05	33.68	27.06
151	0.06	33.72	150	0.05	33.72	27.10

Station 6095; April 10; latitude 45°52′ N., longitude 48°18′ W.; depth 112 m.; dynamic height 971.016.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.11	33.02	0	−0.11	33.02	26.53
25	−0.73	33.22	25	−0.73	33.22	26.72
49	−0.46	33.38	50	−0.45	33.39	26.85
74	−0.13	33.60	75	−0.15	33.60	27.01
98	0.01	33.67	100	0.05	33.67	27.06

Station 6096; April 10; latitude 45°59.5′ N., longitude 48°29′ W.; depth 93 m.; dynamic height 971.026.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.09	33.06	0	0.09	33.06	26.56
26	−0.32	33.11	25	−0.30	33.11	26.61
52	−0.60	33.16	50	−0.60	33.15	26.66
78	−0.14	33.42	75	−0.25	33.38	26.83

Station 6097; April 10; latitude 46°08′ N., longitude 48°42′ W.; depth 73 m.; dynamic height 971.022.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.74	33.10	0	0.74	33.10	26.55
24	0.12	33.17	25	0.10	33.17	26.65
48	−0.32	33.19	50	−0.30	33.19	26.68
62	0.03	33.46				

Station 6098; April 10; latitude 46°17.5′ N., longitude 48°57′ W.; depth 69 m.; dynamic height 971.027.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.07	33.06	0	1.07	33.06	26.51
25	0.69	33.12	25	0.69	33.12	26.57
50	0.22	33.23	50	0.22	33.23	26.69

Station 6099; April 11; latitude 46°16.5′ N., longitude 48′31′ W.; depth 91 m.; dynamic height 971.024.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.71	33.14	0	0.71	33.14	26.59
25	0.31	33.23	25	0.31	33.23	26.69
51	0.17	33.24	50	0.20	33.24	26.70
76	−0.07	33.38	75	−0.05	33.38	26.82

Station 6100; April 11; latitude 46°14.5′ N., longitude 48°02′ W.; depth 128 m.; dynamic height 971.022.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.45	32.99	0	−0.45	32.99	26.53
25	−0.84	33.08	25	−0.84	33.08	26.61
49	−1.04	33.30	50	−1.05	33.30	26.79
74	−0.62	33.32	75	−0.60	33.43	26.88
98	0.02	33.53	100	0.10	33.54	26.94

Station 6101; April 11; latitude 46°13′ N., longitude 47°44′ W.; depth 210 m.; dynamic height 971.047.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.64	32.98	0	−0.64	32.98	26.53
25	−0.83	33.00	25	−0.83	33.00	26.55
50	−1.29	33.08	50	−1.29	33.08	26.62
75	−1.17	33.19	75	−1.17	33.19	26.71
100	−0.94	33.27	100	−0.94	33.27	26.77
150	0.21	33.58	150	0.21	33.58	26.97

Station 6102; April 11; latitude 46°12.5′ N., longitude 47°25′ W.; depth 677 m.; dynamic height 970.940.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.26	33.38	0	0.26	33.38	26.81
26	−0.13	33.64	25	−0.15	33.64	27.04
53	0.14	33.86	50	0.05	33.84	27.19
79	0.73	33.99	75	0.65	33.97	27.26
105	0.71	34.10	100	0.70	34.08	27.34
157	1.91	34.34	150	1.75	34.30	27.45
209	2.56	34.485	200	2.45	34.46	27.52
314	2.96	34.61	300	2.90	34.59	27.59
410	3.59	34.765	400	3.55	34.75	27.65
624	3.71	34.855	600	3.70	34.85	27.72

Station 6103; April 11; latitude 46°11′ N., longitude 47°10′ W.; depth 1,500 m.; dynamic height 970.880.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.24	34.20	0	2.24	34.20	27.33
25	2.05	34.19	25	2.05	34.19	27.34
49	1.72	34.27	50	1.70	34.27	27.43
74	2.09	34.38	75	2.10	34.38	27.48
98	2.15	34.42	100	2.15	34.42	27.52
147	2.52	34.52	150	2.55	34.53	27.57
196	2.99	34.62	200	3.00	34.63	27.61
294	3.33	34.70	300	3.35	34.71	27.64
393	3.79	34.84	400	3.80	34.84	27.70
590	3.71	34.87	600	3.70	34.87	27.74
789	3.55	34.875	800	3.55	34.87	27.75
989	3.43	34.87	1,000	3.45	34.87	27.76
1,439	3.40	34.88				

Station 6104; April 11; latitude 46°09′ N., longitude 46°39′ W.; depth 1,225 m.; dynamic height 970.870.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.15	34.06	0	3.15	34.06	27.14
25	2.42	34.24	25	2.42	34.24	27.35
50	1.58	34.20	50	1.58	34.20	27.38
75	2.51	34.39	75	2.51	34.39	27.46
100	4.79	34.75	100	4.79	34.75	27.52
150	2.94	34.56	150	2.94	34.56	27.56
200	3.36	34.70	200	3.36	34.70	27.63
300	4.71	34.965	300	4.71	34.965	27.70
403	4.00	34.90	400	4.00	34.90	27.73
602	3.57	34.88	600	3.55	34.88	27.75
800	3.47	34.88	800	3.45	34.88	27.76
1,002	3.42	34.88	1,000	3.45	34.88	27.76
1,209	3.42	34.88				

Station 6105; April 11; latitude 46°06′ N., longitude 45°59′ W.; depth 1,756 m.; dynamic height 970.881.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.09	34.19	0	4.09	34.19	27.15
24	3.78	34.21	25	3.75	34.21	27.21
49	3.62	34.24	50	3.65	34.24	27.24
73	3.56	34.31	75	3.55	34.31	27.30
97	3.45	34.39	100	3.45	34.40	27.38
146	3.79	34.60	150	3.80	34.61	27.52
195	3.63	34.74	200	3.65	34.75	27.64
292	3.66	34.845	300	3.70	34.85	27.72
391	3.61	34.86	400	3.60	34.86	27.74
585	3.61	34.875	600	3.60	34.87	27.75
778	3.45	34.875	800	3.45	34.88	27.76
974	3.40	34.885	1,000	3.40	34.88	27.77
1,468	3.31	34.89				

Station 6106; April 11; latitude 46°03.5′ N., longitude 45°20′ W.; depth 3,200 m.; dynamic height 970.916.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.73	34.16	0	4.73	34.16	27.06
22	5.29	34.37	25	5.25	34.36	27.16
43	4.13	34.285	50	3.90	34.27	27.24
65	3.70	34.25	75	3.65	34.25	27.25
87	3.66	34.28	100	3.95	34.40	27.34
129	5.28	34.625	150	5.00	34.62	27.40
172	4.66	34.62	200	4.50	34.66	27.48
259	4.33	34.78	300	4.25	34.82	27.64
378	4.01	34.86	400	3.95	34.87	27.71
564	3.72	34.885	600	3.65	34.88	27.74
749	3.50	34.885	800	3.50	34.89	27.77
942	3.55	34.90	1,000	3.55	34.90	27.77
1,430	3.48	34.92				

Station 6107; April 12; latitude 46°01.5′ N., longitude 44°47′ W.; depth 3,640 m.; dynamic height 970.988.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.73	33.71	0	5.73	33.71	26.59
26	6.02	34.055	25	6.00	34.05	26.82
52	6.66	34.36	50	6.55	34.34	26.98
78	6.96	34.455	75	6.95	34.45	27.01
105	6.86	34.58	100	6.90	34.56	27.11
156	3.36	34.30	150	3.55	34.32	27.31
208	4.16	34.55	200	4.00	34.50	27.41
313	4.91	34.87	300	4.90	34.84	27.58
412	4.79	34.90	400	4.80	34.90	27.64
616	4.45	34.96	600	4.50	34.96	27.72
819	4.19	34.96	800	4.20	34.96	27.76
1,026	3.68	34.91	1,000	3.75	34.92	27.77
1,547	3.31	34.88				

Station 6108; April 12; latitude 46°20′ N., longitude 44°50′ W.; depth 1,500 m.; dynamic height 970.911.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.97	34.08	0	4.97	34.08	26.97
24	4.19	34.22	25	4.20	34.22	27.17
48	4.51	34.30	50	4.50	34.31	27.21
72	4.29	34.39	75	4.25	34.39	27.29
97	3.95	34.42	100	3.95	34.43	27.36
145	4.82	34.66	150	4.80	34.66	27.45
193	4.38	34.67	200	4.40	34.68	27.51
290	4.67	34.90	300	4.65	34.90	27.66
378	4.35	34.92	400	4.25	34.92	27.72
568	3.61	34.86	600	3.60	34.86	27.74
758	3.50	34.87	800	3.50	34.87	27.76
955	3.42	34.88	1,000	3.40	34.88	27.77
1,356	3.35	34.885				

Station 6109; April 12; latitude 46°28′ N., longitude 44°52′ W.; depth 631 m.; dynamic height 970.868.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.77	34.28	0	3.77	34.28	27.26
26	3.57	34.30	25	3.60	34.30	27.29
51	3.41	34.36	50	3.45	34.36	27.35
77	3.61	34.42	75	3.60	34.42	27.39
103	3.50	34.50	100	3.50	34.49	27.45
153	3.27	34.56	150	3.25	34.55	27.52
205	3.52	34.73	200	3.50	34.71	27.63
308	3.56	34.84	300	3.55	34.84	27.72
400	3.53	34.845	400	3.55	34.85	27.73
599	3.51	34.875	600	3.50	34.88	27.76

Station 6110; April 12; latitude 46°38′ N., longitude 44°57′ W.; depth 224 m.; dynamic height 970.879.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.67	34.16	0	3.67	34.16	27.17
26	3.41	34.19	25	3.40	34.19	27.22
51	3.32	34.20	50	3.35	34.20	27.23
77	3.13	34.23	75	3.15	34.23	27.27
102	3.05	34.28	100	3.05	34.27	27.32
153	3.18	34.465	150	3.15	34.45	27.45
204	3.53	34.80	200	3.50	34.79	27.69

Station 6111; April 12; latitude 46°47.5′ N., longitude 44°59′ W.; depth 187 m.; dynamic height 970.880.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.69	34.14	0	3.69	34.14	27.15
24	3.55	34.16	25	3.55	34.16	27.19
49	3.29	34.19	50	3.30	34.19	27.23
73	3.19	34.20	75	3.15	34.20	27.25
97	3.12	34.26	100	3.10	34.27	27.32
145	3.25	34.47	150	3.30	34.49	27.47

Station 6112; April 12; latitude 46°53.5′ N., longitude 45°02′ W.; depth 201 m.; dynamic height 970.880.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.69	34.15	0	3.69	34.15	27.16
25	3.68	34.15	25	3.68	34.15	27.16
50	3.36	34.19	50	3.36	34.19	27.22
75	3.09	34.23	75	3.09	34.23	27.28
100	3.10	34.305	100	3.10	34.305	27.34
149	3.30	34.50	150	3.30	34.51	27.49
189	3.83	34.71	(200)	3.90	34.76	27.63

Station 6113; April 12; latitude 46°52.5′. N., longitude 45°09′ W.; depth 224 m.; dynamic height 970.879.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.63	34.15	0	3.63	34.15	27.17
25	3.61	34.16	25	3.61	34.16	27.18
49	3.27	34.20	50	3.25	34.20	27.24
74	3.12	34.24	75	3.15	34.24	27.28
98	3.16	34.31	100	3.15	34.33	27.35
147	3.56	34.56	150	3.60	34.58	27.51
196	3.71	34.70	200	3.75	34.71	27.60

Station 6114; April 12; latitude 46°52′ N., longitude 45°51′ W.; depth 272 m.; dynamic height 970.862.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.96	34.13	0	3.96	34.13	27.12
25	3.30	34.21	25	3.30	34.21	27.25
49	3.12	34.305	50	3.10	34.31	27.35
74	3.53	34.45	75	3.55	34.45	27.41
99	3.18	34.48	100	3.20	34.49	27.48
148	4.39	34.77	150	4.40	34.77	27.58
198	3.69	34.79	200	3.70	34.79	27.67
257	3.65	34.84				

Station 6115; April 13; latitude 46°51.5′ N., longitude 46°07′ W.; depth 326 m.; dynamic height 970.878.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.53	34.16	0	3.53	34.16	27.19
25	3.50	34.17	25	3.50	34.17	27.20
51	3.19	34.21	50	3.20	34.21	27.26
76	3.11	34.22	75	3.10	34.22	27.18
101	3.14	34.31	100	3.15	34.31	27.34
152	3.82	34.59	150	3.80	34.57	27.49
203	3.63	34.78	200	3.65	34.78	27.66
304	3.60	34.84	300	3.60	34.84	27.72

STATIONS OCCUPIED IN 1955—Continued

Station 6116; April 13; latitude 46°51′ N., longitude 46°28′ W.; depth 659 m.; dynamic height 970.884.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.56	34.18	0	3.56	34.18	27.20
25	3.54	34.18	25	3.54	34.18	27.20
50	3.38	34.27	50	3.38	34.27	27.29
75	3.26	34.30	75	3.26	34.30	27.32
100	3.10	34.36	100	3.10	34.36	27.39
150	3.02	34.44	150	3.02	34.44	27.46
200	3.93	34.71	200	3.93	34.71	27.58
300	4.06	34.88	300	4.06	34.88	27.70
408	3.63	34.87	400	3.65	34.87	27.74
607	3.46	34.88	600	3.50	34.88	27.76

Station 6117; Apri 13; latitude 46°50.5′ N., longitude 46°46′ W; depth 1,216 m.; dynamic height 970.872.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.47	34.32	0	2.47	34.32	27.41
25	2.54	34.36	25	2.54	34.36	27.44
50	2.39	34.36	50	2.39	34.36	27.45
75	2.32	34.42	75	2.32	34.42	27.50
100	2.68	34.52	100	2.68	34.52	27.55
150	2.79	34.56	150	2.79	34.56	27.57
201	2.82	34.59	200	2.80	34.59	27.59
301	3.69	34.80	300	3.70	34.80	27.68
411	3.76	34.85	400	3.75	34.85	27.71
612	3.53	34.86	600	3.55	34.86	27.74
810	3.47	34.87	800	3.50	34.87	27.76
1,020	3.42	34.87	1,000	3.45	34.87	27.76

Station 6118; April 13; latitude 46°50′ N., longitude 47°04′ W.; depth 659 m.; dynamic height 970.933.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.48	33.79	0	0.48	33.79	27.12
25	0.62	33.83	25	0.62	33.83	27.14
51	0.43	33.95	50	0.45	33.95	27.25
76	0.55	34.035	75	0.55	34.03	27.31
101	0.98	34.15	100	0.95	34.11	27.37
152	2.10	34.39	150	2.10	34.38	27.48
203	2.13	34.445	200	2.15	34.44	27.53
304	2.90	34.59	300	2.85	34.58	27.58
401	3.39	34.71	400	3.40	34.71	27.64
600	3.75	34.84	600	3.75	34.84	27.70

Station 6119; April 13; latitude 46°50′ N. longitude 47°14′ W.; depth 332 m.; dynamic height 970.955.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.54	33.70	0	0.54	33.70	27.05
25	0.41	33.71	25	0.41	33.71	27.07
50	0.10	33.80	50	0.10	33.80	27.15
75	0.10	33.88	75	0.10	33.88	27.21
100	0.33	33.99	100	0.33	33.99	27.29
150	1.29	34.195	150	1.29	34.195	27.40
199	2.18	34.41	200	2.20	34.41	27.51
299	2.55	34.49	300	2.55	34.49	27.54

Station 6120; April 13; latitude 46°50′ N., longitude 47°29′ W.; depth 172 m.; dynamic height 971.029.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−1.03	32.96	0	−1.03	32.96	26.52
25	−1.30	32.98	25	−1.30	32.98	26.54
50	−1.22	33.10	50	−1.22	33.10	26.64
75	−0.53	33.28	75	−0.53	33.28	26.76
99	0.21	33.53	100	0.20	33.54	26.94
149	0.31	33.67	150	0.35	33.67	27.04

Station 6121; April 13; latitude 46°49′ N., longitude 48°05′ W.; depth 110 m.; dynamic height 971.040.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.20	33.06	0	0.20	33.06	26.55
24	0.13	33.07	25	0.10	33.07	26.57
49	−0.27	33.10	50	−0.30	33.10	26.60
73	−0.36	33.12	75	−0.35	33.13	26.63
96	−0.13	33.30	100	−0.10	33.33	26.78

Station 6122; April 13; latitude 46°49′ N., longitude 48°36′ W.; depth 80 m.; dynamic height 971.038.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.74	33.13	0	0.74	33.13	26.58
24	0.70	33.14	25	0.70	33.14	26.59
49	0.54	33.14	50	0.50	33.14	26.60
68	0.20	33.20	75	0.10	33.22	26.69

Station 6123; May 19; latitude 43°38′ N., longitude 51°24′ W.; depth 88 m.; dynamic height 971.098.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.40	32.76	0	5.40	32.76	25.88
25	3.50	33.01	25	3.50	33.01	26.28
50	2.62	33.21	50	2.62	33.21	26.52
75	3.42	33.55	75	3.42	33.55	26.71

Station 6124; May 19; latitude 43°28′ N., longitude 51°39′ W.; depth 192 m.; dynamic height 971.096.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.74	32.64	0	5.74	32.64	25.75
25	3.04	33.06	25	3.04	33.06	26.35
50	0.24	33.07	50	0.24	33.07	26.56
75	2.67	33.57	75	2.67	33.57	26.80
99	2.46	33.77	100	2.45	33.78	26.97
149	1.94	33.98	150	1.95	33.98	27.18

STATIONS OCCUPIED IN 1956—Continued

Station 6125; May 19; latitude 43°24′ N., longitude 51°45′ W.; depth 969 m.; dynamic height 971.094.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.75	32.90	0	4.75	32.90	26.06
25	2.16	33.09	25	2.16	33.09	26.45
50	−0.18	33.16	50	−0.18	33.16	26.65
75	−0.14	33.40	75	−0.14	33.40	26.85
100	−0.07	33.51	100	−0.07	33.51	26.93
150	0.12	33.62	150	0.12	33.62	27.01
199	2.20	33.98	200	2.25	33.99	27.16
299	2.94	34.40	300	2.95	34.40	27.43
385	2.96	34.48	400	3.00	34.50	27.51
581	3.50	34.76	600	3.55	34.78	27.67
680	3.67	34.82	(800)	3.75	34.86	27.72

Station 6126; May 19; latitude 43°18′ N., longitude 51°56′ W.; depth 1,463 m.; dynamic height 971.055.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.40	32.96	0	3.40	32.96	26.24
25	0.09	33.02	25	0.09	33.02	26.53
50	−0.24	33.24	50	−0.24	33.24	26.72
75	−0.14	33.47	75	−0.14	33.47	26.90
101	−0.11	33.55	100	−0.10	33.55	26.96
151	1.35	33.90	150	1.35	33.89	27.15
201	2.16	34.08	200	2.15	34.07	27.24
302	4.76	34.60	300	4.75	34.60	27.41
405	2.86	34.58	400	2.90	34.58	27.58
604	3.67	34.82	600	3.65	34.82	27.70
802	3.61	34.86	800	3.60	34.86	27.74
1,002	3.68	34.90	1,000	3.70	34.90	27.76

Station 6127; May 19; latitude 43°06′ N., longitude 52°08′ W.; depth 2,468 m.; dynamic height 971.010.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.98	33.08	0	6.98	33.08	25.93
24	0.35	33.02	25	0.30	33.02	26.52
47	0.16	33.38	50	0.20	33.50	26.91
71	6.56	34.51	75	6.40	34.50	27.13
94	5.37	34.40	100	5.10	34.38	27.19
141	2.96	34.25	150	3.40	34.33	27.33
188	5.64	34.72	200	5.50	34.71	27.41
282	4.15	34.65	300	4.55	34.74	27.54
340	5.59	34.96	400	5.20	34.96	27.64
511	4.78	34.97	600	4.80	34.98	27.70
682	4.40	34.99	800	4.20	34.96	27.76
862	4.11	34.95	1,000	3.95	34.94	27.76
1,330	3.65	34.925				

Station 6128; May 19; latitude 42°49′ N., longitude 52°25′ W.; depth 3,237 m.; dynamic height 971.092.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.77	33.49	0	9.77	33.49	25.83
27	6.70	33.79	25	6.80	33.76	26.49
53	8.37	34.38	50	8.15	34.32	26.74
80	10.16	34.92	75	9.85	34.83	26.86
107	10.99	35.165	100	10.80	35.13	26.93
161	10.21	35.17	150	10.45	35.17	27.03
214	8.40	34.98	200	9.00	35.04	27.17
321	3.85	34.49	300	4.40	34.58	27.43
423	4.72	34.81	400	4.60	34.74	27.53
634	4.46	34.94	600	4.55	34.93	27.69
848	3.83	34.90	800	3.95	34.91	27.74
1,059	3.63	34.90	1,000	3.65	34.90	27.76
1,585	3.63	34.945				

Station 6129; May 19; latitude 42°33.5′ N., longitude 52°40′ W.; depth 3,841 m.; dynamic height 971.145.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.33	34.66	0	12.33	34.66	26.28
27	13.95	35.67	25	13.90	35.64	26.72
53	12.10	35.29	50	12.30	35.33	26.80
80	13.08	35.59	75	12.90	35.54	26.85
106	12.59	35.51	100	12.70	35.52	26.88
160	11.88	35.42	150	12.00	35.43	26.94
213	11.12	35.41	200	11.30	35.42	27.07
319	8.38	35.03	300	8.90	35.09	27.22
413	6.89	34.94	400	7.05	34.94	27.38
618	4.19	34.91	600	4.30	34.91	27.70
825	4.02	34.91	800	4.05	34.91	27.73
1,034	4.03	34.94	1,000	4.05	34.93	27.74
1,562	3.72	34.94				

Station 6130; May 19–20; latitude 42°21.5′ N., longitude 52°25′ W.; depth 3,841 m.; dynamic height 971.149.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.31	35.70	0	15.31	35.70	26.46
26	15.07	35.87	25	15.05	35.87	26.64
51	14.86	35.89	50	14.85	35.89	26.70
77	14.39	35.80	75	14.45	35.81	26.74
102	13.65	35.70	100	13.70	35.71	26.82
155	12.25	35.48	150	12.40	35.50	26.92
206	10.84	35.28	200	11.00	35.30	27.03
308	4.56	34.50	300	5.00	34.54	27.33
390	2.47	34.34	400	2.45	34.34	27.42
591	3.09	34.65	600	3.15	34.66	27.62
798	3.57	34.79	800	3.60	34.79	27.68
1,005	3.63	34.85	1,000	3.60	34.85	27.73
1,539	3.50	34.88				

Station 6131; May 20; latitude 42°02.5′ N., longitude 51°58′ W.; depth 3,841 m.; dynamic height 971.064.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.32	33.10	0	8.32	33.10	25.76
27	3.92	33.19	25	4.25	33.18	26.33
52	0.29	33.06	50	0.40	33.07	26.55
79	2.42	33.63	75	2.05	33.53	26.82
105	3.39	33.99	100	3.25	33.93	27.02
158	4.46	34.30	150	4.35	34.28	27.19
210	2.88	34.28	200	3.20	34.28	27.31
315	3.10	------	300	3.10	34.42	27.44
372	3.12	34.57	400	3.15	34.63	27.59
559	4.12	34.86	600	4.15	34.88	27.69
749	4.21	34.94	800	4.15	34.94	27.74
948	3.86	34.92	1,000	3.80	34.92	27.77
1,463	3.74	34.95				

Station 6132; May 20; latitude 42°01′ N., longitude 51°01′ W.; depth 3,246 m.; dynamic height 970.941.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.82	33.29	0	6.82	33.29	26.12
24	4.78	33.30	25	4.70	33.30	26.37
49	2.07	33.86	50	2.05	33.87	27.09
73	3.48	34.26	75	3.45	34.26	27.27
98	2.64	34.30	100	2.65	34.31	27.39
147	4.93	34.73	150	5.05	34.75	27.49
195	6.47	35.08	200	6.45	35.08	27.57
293	5.31	35.01	300	5.15	35.00	27.68
349	4.19	34.88	400	4.00	34.87	27.71
527	3.79	34.87	600	3.75	34.87	27.73
708	3.64	34.88	800	3.60	34.88	27.75
897	3.51	34.88	1,000	3.50	34.89	27.77
1,389	3.42	34.90				

STATIONS OCCUPIED IN 1956—Continued

Station 6133; May 20; latitude 42°20.5′ N., longitude 51°27′ W.; depth 2,963 m.; dynamic height 971.016.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.81	33.11	0	7.81	33.11	25.84
27	3.69	33.26	25	4.00	33.23	26.40
52	4.73	33.76	50	4.65	33.71	26.72
79	4.97	34.28	75	4.95	34.22	27.09
105	4.66	34.28	100	4.70	34.28	27.16
158	5.64	34.60	150	5.45	34.55	27.28
210	6.40	34.88	200	6.30	34.84	27.41
315	5.14	34.88	300	5.30	34.88	27.56
408	5.47	35.01	400	5.45	35.00	27.64
611	4.09	34.90	600	4.15	34.90	27.71
814	4.16	34.96	800	4.15	34.96	27.76
1,023	3.96	34.945	1,000	4.00	34.95	27.77
1,550	3.57	34.92				

Station 6134; May 20; latitude 42°39.5′ N., longitude 51°00′ W.; depth 1,783 m.; dynamic height 971.123.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.32	32.96	0	4.32	32.96	26.15
26	1.43	33.10	25	1.55	33.10	26.50
52	−0.13	33.24	50	−0.10	33.23	26.70
78	−0.29	33.40	75	−0.30	33.38	26.83
104	−0.25	33.45	100	−0.25	33.44	26.88
155	0.00	33.57	150	−0.05	33.56	26.97
208	0.41	33.75	200	0.35	33.72	27.08
312	1.81	34.22	300	1.60	34.17	27.36
414	2.96	34.61	400	2.85	34.56	27.57
617	3.83	34.82	600	3.80	34.82	27.69
819	3.71	34.86	800	3.75	34.86	27.72
1,027	3.56	34.86	1,000	3.55	34.86	27.74
1,552	3.47	34.89				

Station 6135; May 20; latitude 42°48′ N., longitude 50°50′ W.; depth 1,028 m.; dynamic height 971.102.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.06	32.96	0	4.06	32.96	26.18
20	3.01	33.02	25	2.70	33.05	26.38
40	1.66	33.14	50	2.00	33.21	26.57
61	2.49	33.30	75	2.65	33.52	26.76
81	2.67	33.60	100	2.95	33.78	26.93
122	3.30	33.94	150	1.95	33.87	27.09
162	1.54	33.84	200	2.60	34.01	27.15
243	3.38	34.23	300	3.65	34.42	27.38
329	3.70	34.50	400	3.60	34.59	27.52
501	3.19	34.68	600	3.40	34.77	27.69
676	3.62	34.82	800	3.65	34.83	27.70
881	3.67	34.84	(1,000)	3.65	34.85	27.72

Station 6136; May 20; latitude 42°53′ N., longitude 50°44′ W.; depth 260 m.; dynamic height 971.090.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.07	32.97	0	4.07	32.97	26.19
24	2.23	33.00	25	2.20	33.00	26.38
49	0.62	33.16	50	0.60	33.16	26.61
73	0.32	33.25	75	0.25	33.26	26.71
98	−0.19	33.41	100	−0.20	33.42	26.87
146	0.17	33.62	150	0.25	33.63	27.01
195	0.96	33.86	200	1.00	33.88	27.16
235	*1.33	34.06				

Station 6137; May 21; latitude 42°57.5′ N., longitude 50°40′ W.; depth 110 m.; dynamic height 971.086.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.14	32.88	0	5.14	32.88	26.00
26	1.44	33.12	25	1.60	33.11	26.51
51	0.12	33.24	50	0.15	33.23	26.69
77	−0.24	33.32	75	−0.25	33.31	26.77
102	0.03	33.41	100	−0.05	33.40	26.84

Station 6138; May 21; latitude 43°04′ N., longitude 50°31′ W.; depth 91 m.; dynamic height 971.100.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.52	32.84	0	5.52	32.84	25.92
26	3.99	32.89	25	4.05	32.89	26.12
51	1.60	33.16	50	1.65	33.15	26.54
77	0.49	33.36	75	0.55	33.35	26.76

Station 6139; May 21; latitude 43°21′ N., longitude 50°13 W.; depth 60 m.; dynamic height 971.120.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.39	32.58	0	6.39	32.58	25.62
26	3.63	32.77	25	3.65	32.76	26.06
52	3.63	32.77	50	3.65	32.77	26.07

Station 6140; May 21; latitude 42°58′ N., longitude 50°16′ W.; depth 93 m.; dynamic height 971.084.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.66	32.86	0	5.66	32.86	25.92
26	1.09	33.12	25	1.20	33.11	26.54
52	0.60	33.26	50	0.65	33.26	26.69
78	0.36	33.29	75	0.40	33.29	26.72

Station 6141; May 21; latitude 42°47′ N., longitude 50°16′ W.; depth 357 m.; dynamic height 971.048.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.67	32.94	0	2.67	32.94	26.29
24	0.53	32.97	25	0.50	32.97	26.46
47	−0.54	33.10	50	−0.55	33.13	26.64
71	−0.50	33.34	75	−0.40	33.38	26.84
94	0.16	33.55	100	0.25	33.59	26.98
141	0.65	33.84	150	0.75	33.89	27.19
188	1.30	34.10	200	1.50	34.16	27.36
			(300)	3.15	34.60	27.57

Station 6142; May 21; latitude 42°36′ N., longitude 50°17, W.; depth 1,829 m.; dynamic height 970.982.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.58	32.92	0	2.58	32.92	26.28
26	0.96	33.00	25	0.95	33.00	26.47
52	2.04	33.47	50	1.95	33.43	26.74
78	2.47	33.68	75	2.45	33.65	26.88
104	1.55	33.95	100	1.65	33.90	27.13
155	2.16	34.28	150	2.15	34.26	27.39
207	2.17	34.41	200	2.15	34.40	27.50
311	2.69	34.57	300	2.65	34.55	27.58
418	3.45	34.75	400	3.35	34.72	27.65
625	4.01	34.92	600	4.00	34.91	27.74
829	3.67	34.90	800	3.70	34.90	27.76
1,035	3.52	34.91	1,000	3.55	34.91	27.78
1,553	3.45	34.905				

STATIONS OCCUPIED IN 1955—Continued

Station 6143; May 21; latitude 42°15′ N., longitude 50°18′ W.; depth 2,798 m.; dynamic height 970.995.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.12	33.90	0	10.12	33.90	26.09
24	11.83	35.09	25	11.80	35.10	26.73
47	11.71	35.25	50	11.60	35.24	26.87
71	10.75	35.18	75	10.55	35.16	27.00
95	9.88	35.08	100	9.80	35.08	27.06
141	9.06	35.11	150	8.80	35.10	27.25
188	7.75	35.06	200	7.50	35.05	27.40
283	*6.25	35.00	300	5.90	34.98	27.57
350	4.97	34.91	400	4.50	34.90	27.67
530	3.89	34.89	600	3.75	34.89	27.74
713	3.66	34.895	800	3.60	34.89	27.76
905	3.52	34.89	1,000	3.50	34.89	27.77
1,406	3.42	34.91				

Station 6144; May 21; latitude 41°53′ N., longitude 50°16′ W.; depth 3,566 m.; dynamic height 970.945.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.13	33.20	0	8.13	33.20	25.87
27	2.93	33.27	25	3.20	33.25	26.50
53	2.40	33.70	50	2.50	33.64	26.86
80	1.80	34.01	75	1.80	33.96	27.17
106	2.45	34.23	100	2.25	34.18	27.31
160	3.45	34.50	150	3.30	34.45	27.44
213	3.83	34.66	200	3.70	34.61	27.53
319	*5.12	35.05	300	4.90	35.01	27.72
426	5.31	35.08	400	5.20	35.08	27.72
637	4.64	35.04	600	4.80	35.05	27.76
847	4.07	34.98	800	4.15	34.99	27.78
1,060	3.77	34.955	1,000	3.85	34.96	27.79
1,594	3.48	34.94				

Station 6145; May 21; latitude 41°27.5′ N., longitude 50°18′ W.; depth 3,749 m.; dynamic height 970.944.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.09	33.10	0	8.09	33.10	25.79
24	2.90	33.19	25	2.85	33.21	26.50
48	2.57	33.72	50	2.50	33.77	26.97
72	2.34	34.12	75	2.30	34.12	27.27
96	1.88	34.16	100	1.90	34.16	27.33
144	1.96	34.31	150	2.05	34.34	27.46
192	3.52	34.60	200	3.60	34.63	27.55
288	4.46	34.86	300	4.55	34.88	27.65
391	4.95	35.01	400	4.95	35.01	27.71
587	4.20	34.96	600	4.15	34.96	27.76
786	3.87	34.94	800	3.85	34.94	27.77
988	3.79	34.94	1,000	3.80	34.94	27.78
1,506	3.56	34.955				

Station 6146; May 22; latitude 41°02.5′ N., longitude 50°17′ W.; depth 4,115 m.; dynamic height 971.099.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.80	33.94	0	12.80	33.94	25.63
24	7.67	33.85	25	7.65	33.85	26.44
47	7.25	33.90	50	7.25	33.90	26.53
188	7.81	34.86	75	7.35	34.00	26.60
281	6.47	34.71	100	7.50	34.16	26.71
286	5.46	34.78	150	7.75	34.57	27.00
406	3.72	34.70	200	7.65	34.85	27.23
541	4.63	34.91	300	5.65	34.75	27.42
648	4.15	34.90	400	3.75	34.70	27.59
1,005	3.93	34.96	600	4.35	34.90	27.69
			800	4.00	34.92	27.75
			1,000	3.95	34.96	27.78

Station 6147; May 22; latitude 42°01.5′ N., longitude 49°29′ W.; depth 2,926 m.; dynamic height 970.927.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.00	33.42	0	8.00	33.42	26.06
24	6.63	33.41	25	6.25	33.41	26.29
47	2.37	33.76	50	2.35	33.82	27.02
396	4.73	34.99	75	2.75	34.22	27.31
589	4.05	34.95	100	3.25	34.40	27.40
779	3.95	34.96	150	3.80	34.62	27.53
977	3.78	34.955	200	4.15	34.77	27.61
1,479	3.52	34.945	300	4.60	34.93	27.68
			400	4.75	34.99	27.71
			600	4.05	34.95	27.76
			800	3.90	34.96	27.79
			1,000	3.75	34.95	27.79

Station 6148; May 22; latitude 41°31.5′ N., longitude 48°57′ W.; depth 3,319 m.; dynamic height 971.005.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.76	33.43	0	10.76	33.43	25.61
25	6.84	33.67	25	6.84	33.67	26.42
50	9.14	34.42	50	9.14	34.42	26.66
76	10.04	35.04	75	10.05	35.04	26.99
101	9.36	35.06	100	9.35	35.06	27.13
150	7.20	34.72	150	7.18	34.72	27.19
200	4.22	34.50	200	4.21	34.50	27.39
301	4.55	34.82	300	4.55	34.82	27.61
355	5.95	35.11	400	5.80	35.11	27.69
520	5.17	35.08	600	4.70	35.04	27.76
679	4.40	35.01	800	4.15	34.98	27.77
858	4.06	34.97	1,000	3.90	34.96	27.79
1,321	3.59	34.94				

Station 6149; May 22; latitude 41°01′ N., longitude 48°31′ W.; depth 3,712 m.; dynamic height 971.061.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.53	33.52	0	11.53	33.52	25.55
26	5.45	33.30	25	5.50	33.30	26.28
51	6.62	33.81	50	6.55	33.80	26.56
77	10.02	34.89	75	9.90	34.80	26.83
103	9.90	34.94	100	9.95	34.94	26.93
153	5.27	34.30	150	5.55	34.33	27.10
205	3.27	34.26	200	3.35	34.26	27.28
308	3.86	34.62	300	3.80	34.59	27.50
424	4.45	34.87	400	4.35	34.83	27.63
634	4.66	34.99	600	4.65	34.98	27.72
844	4.05	34.95	800	4.15	34.96	27.76
1,059	3.98	34.98	1,000	4.00	34.97	27.78
1,605	3.48	34.94				

Station 6150; May 23; latitude 41°38′ N., longitude 47°12′ W.; depth 4,298 m.; dynamic height 971.350.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	18.37	36.10	0	18.37	36.10	26.04
25	17.36	36.16	25	17.36	36.16	26.33
50	17.06	36.24	50	17.06	36.24	26.47
75	16.66	36.24	75	16.66	36.24	26.56
100	16.17	36.15	100	16.17	36.15	26.61
150	15.12	35.95	150	15.12	35.95	26.70
199	13.74	35.66	200	13.70	35.66	26.78
299	13.09	35.66	300	13.05	35.66	26.91
398	11.07	35.39	400	11.05	35.38	27.07
595	6.82	35.00	600	6.70	35.00	27.48
791	4.88	34.99	800	4.85	34.99	27.70
990	4.66	35.02	1,000	4.65	35.02	27.76
1,486	3.63	34.94				

STATIONS OCCUPIED IN 1956—Continued

Station 6151; May 23; latitude 42°02′ N., longitude 47°46′ W.; depth 3,786 m.; dynamic height 971.269.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	17.51	35.62	0	17.51	35.62	25.89
26	16.03	36.02	25	16.05	36.02	26.54
52	15.32	35.89	50	15.35	35.90	26.60
78	15.17	35.94	75	15.20	35.94	26.67
104	14.27	35.78	100	14.35	35.80	26.75
155	13.82	35.74	150	13.85	35.74	26.81
206	13.35	35.69	200	13.40	35.69	26.86
310	11.68	35.45	300	11.80	35.47	27.01
409	9.53	35.24	400	9.70	35.26	27.22
610	6.24	35.03	600	6.35	35.04	27.56
807	4.48	34.945	800	4.50	34.95	27.71
1,011	4.05	34.95	1,000	4.05	34.95	27.76
1,524	3.79	34.97				

Station 6152; May 23; latitude 42°29.5′ N., longitude 48° 27′ W.; depth 3,219 m.; dynamic height 971.004.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	11.68	33.78	0	11.68	33.78	25.73
25	4.79	33.48	25	4.79	33.48	26.52
51	9.13	34.74	50	8.95	34.72	26.93
76	8.61	34.82	75	8.60	34.82	27.06
102	8.21	34.86	100	8.25	34.86	27.15
151	6.74	34.74	150	6.75	34.74	27.27
202	4.78	34.58	200	4.80	34.58	27.38
304	5.48	34.89	300	5.40	34.88	27.55
415	4.38	34.87	400	4.50	34.87	27.65
619	4.26	34.96	600	4.25	34.96	27.75
821	4.04	34.95	800	4.05	34.95	27.76
1,028	3.81	34.94	1,000	3.85	34.94	27.77
1,547	3.49	34.94				

Station 6153; May 23; latitude 42°41.5′ N., longitude 49°08′ W.; depth 2,378 m.; dynamic height 970.900.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.76	33.22	0	3.76	33.22	26.41
24	3.07	33.69	25	3.05	33.69	26.86
48	1.68	33.75	50	1.70	33.77	27.03
72	2.04	34.17	75	2.10	34.20	27.34
96	2.47	34.36	100	2.50	34.38	27.45
144	2.48	34.52	150	2.50	34.53	27.57
193	2.88	34.61	200	2.95	34.63	27.61
289	4.48	34.91	300	4.50	34.92	27.69
418	4.31	34.95	400	4.35	34.95	27.73
623	3.86	34.93	600	3.90	34.93	27.76
826	3.63	34.915	800	3.65	34.92	27.78
1,034	3.65	34.935	1,000	3.65	34.93	27.78
1,558	3.36	34.92				

Station 6154; May 24; latitude 43°26′ N., longitude 48°46′ W.; depth 2,012 m.; dynamic height 970.920.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.84	32.98	0	2.84	32.98	26.31
25	1.05	33.50	25	1.05	33.50	26.86
50	0.96	33.72	50	0.96	33.72	27.04
75	2.87	34.10	75	2.87	34.10	27.20
100	3.07	34.31	100	3.07	34.31	27.35
150	2.85	34.54	150	2.85	34.54	27.55
200	3.13	34.62	200	3.13	34.62	27.59
300	4.48	34.92	300	4.48	34.92	27.69
369	4.26	34.93	400	4.20	34.93	27.73
556	3.94	34.90	600	3.90	34.90	27.74
746	3.72	34.90	800	3.70	34.90	27.76
943	3.61	34.895	1,000	3.60	34.89	27.76
1,453	3.37	34.88				

Station 6155; May 24; latitude 43°13′ N., longitude 48°05′ W.; depth 3,383 m.; dynamic height 970.935.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	9.14	33.58	0	9.14	33.58	26.01
22	6.28	33.56	25	6.05	33.60	26.46
45	4.96	34.02	50	4.60	34.05	26.99
67	3.56	34.14	75	3.60	34.19	27.20
89	3.65	34.28	100	3.65	34.33	27.31
133	3.73	34.45	150	3.85	34.53	27.41
178	4.10	34.66	200	4.20	34.74	27.58
267	4.32	34.88	300	4.30	34.90	27.69
416	4.29	34.94	400	4.30	34.94	27.72
622	3.94	34.94	600	4.00	34.94	27.76
826	3.62	34.91	800	3.65	34.91	27.77
1,034	3.55	34.92	1,000	3.55	34.92	27.79
1,553	3.36	34.91				

Station 6156; May 24; latitude 43°02′ N., longitude 47°23′ W.; depth 3,658 m.; dynamic height 971.106.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	11.26	33.38	0	11.26	33.38	25.49
26	7.12	33.69	25	7.25	33.68	26.37
51	8.16	34.32	50	8.05	34.30	26.74
77	9.41	34.72	75	9.25	34.68	26.84
102	10.54	35.05	100	10.50	35.03	26.90
153	10.00	35.08	150	10.05	35.08	27.02
204	9.51	35.11	200	9.55	35.11	27.13
306	6.41	34.82	300	6.50	34.83	27.37
344	6.33	34.86	400	5.40	34.86	27.54
519	4.47	34.86	600	4.35	34.90	27.69
695	4.27	34.95	800	4.30	34.99	27.76
877	4.32	35.00	1,000	4.20	35.00	27.79
1,347	3.60	34.95				

Station 6157; May 24; latitude 42°31.5′ N., longitude 46°48′ W.; depth 4,152 m.; dynamic height 971.183.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	17.73	35.05	0	17.73	35.05	25.39
25	14.58	35.57	25	14.58	35.57	26.52
50	12.92	35.36	50	12.92	35.36	26.71
75	13.08	35.44	75	13.08	35.44	26.74
100	12.76	35.42	100	12.76	35.42	26.78
149	12.54	35.51	150	12.50	35.51	26.91
198	11.71	35.40	200	11.65	35.40	26.98
298	9.70	35.23	300	9.60	35.23	27.21
413	7.18	35.07	400	7.35	35.08	27.45
617	6.56	35.22	600	6.65	35.21	27.65
820	4.78	35.03	800	4.90	35.04	27.74
1,028	4.13	34.97	1,000	4.25	34.97	27.76
1,553	3.54	34.93				

Station 6158; May 24; latitude 42°19.5′ N., longitude 46°10′ W.; depth 4,572 m.; dynamic height 971.040.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	16.87	34.82	0	16.87	34.82	25.44
21	11.57	34.76	25	11.80	34.83	26.51
41	12.82	35.26	50	11.95	35.16	26.75
62	10.81	35.00	75	9.50	34.88	26.96
82	8.92	34.84	100	8.90	34.88	27.06
123	8.87	34.93	150	8.35	34.92	27.18
164	7.90	34.90	200	6.10	34.78	27.38
246	3.85	34.64	300	4.60	34.78	27.56
395	5.98	35.06	400	6.00	35.06	27.62
590	4.93	35.01	600	4.90	35.00	27.71
785	4.10	34.94	800	4.10	34.91	27.75
988	4.30	35.00	1,000	4.30	35.00	27.77
1,509	3.63	34.94				

Table of Oceanographic Data—Continued

STATIONS OCCUPIED IN 1956—Continued

Station 6159; May 25; latitude 42°45.5′ N., longitude 45°46′ W.; depth 4,663 m.; dynamic height 971.417.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	18.82	36.14	0	18.82	36.14	25.96
22	17.77	36.20	25	17.65	36.20	26.30
43	16.96	36.23	50	16.70	36.21	26.54
65	16.37	36.12	75	16.05	36.06	26.57
86	15.82	36.02	100	15.80	36.03	26.60
129	15.75	36.07	150	15.60	36.05	26.66
172	15.35	36.01	200	14.85	35.92	26.73
258	13.72	35.74	300	13.40	35.77	26.93
287	13.51	35.79	400	12.55	35.59	26.95
402	12.49	35.58	600	8.15	35.11	27.36
499	9.83	35.26	800	5.70	35.00	27.61
654	7.38	35.06	1,000	4.45	34.96	27.73
1,098	4.08	34.94				

Station 6160; May 25; latitude 43°10′ N., longitude 45°20′ W.; depth 4,663 m.; dynamic height 971.483.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	19.31	36.29	0	19.31	36.29	25.95
19	18.70	36.40	25	18.45	36.41	26.26
39	17.86	36.43	50	17.75	36.43	26.44
58	17.71	36.43	75	17.55	36.41	26.48
77	17.51	36.41	100	17.30	36.38	26.52
116	17.16	36.36	150	16.90	36.34	26.58
155	16.91	36.34	200	16.10	36.20	26.67
232	15.53	36.09	300	15.10	36.05	26.77
281	*15.34	36.095	400	13.60	35.78	26.89
411	13.44	35.75	600	9.25	35.22	27.27
532	11.05	35.45	800	5.30	34.92	27.60
681	7.21	34.94	1,000	4.10	34.91	27.73
1,079	3.94	34.91				

Station 6161; May 25; latitude 43°25.5′ N., longitude 45°52′ W.; depth 4,572 m.; dynamic height 971.369.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	17.37	35.80	0	17.37	35.80	26.06
28	15.37	35.84	25	15.60	35.83	26.50
56	15.05	35.75	50	15.05	35.76	26.56
85	15.43	36.04	75	15.35	35.93	26.63
112	15.34	36.04	100	15.40	36.04	26.70
169	14.63	35.96	150	14.85	35.99	26.79
225	13.86	35.78	200	14.20	35.86	26.82
337	12.76	35.60	300	13.15	35.65	26.88
422	11.45	35.45	400	11.85	35.50	27.02
631	6.41	34.92	600	7.15	34.98	27.40
837	4.91	34.96	800	5.00	34.95	27.66
1,053	4.79	35.04	1,000	4.80	35.02	27.74
1,606	3.71	34.96				

Station 6162; May 25; latitude 43°35.5′ N., longitude 46°27′ W.; depth 4,500 m.; dynamic height 971.306.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	17.69	36.02	0	17.69	36.02	26.15
24	17.12	35.98	25	17.05	35.98	26.27
47	15.20	35.90	50	15.20	35.90	26.64
70	15.20	35.95	75	15.10	35.94	26.69
93	14.80	35.86	100	14.80	35.86	26.69
141	14.84	35.90	150	14.65	35.88	26.74
188	13.96	35.78	200	13.70	35.74	26.84
413	9.73	35.19	300	11.85	35.46	26.99
614	6.25	34.94	400	10.00	35.21	27.14
813	5.05	35.095	600	6.40	34.94	27.47
1,021	4.65	35.04	800	5.10	35.09	27.75
1,550	3.60	34.94	1,000	4.65	35.04	27.77

Station 6163; May 25; latitude 43°37.5′ N., longitude 47°19′ W.; depth 4,115 m.; dynamic height 971.045.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	8.71	33.16	0	8.71	33.16	25.75
26	12.07	35.00	25	12.00	34.93	26.55
52	10.87	34.82	50	11.00	34.83	26.66
78	9.51	34.83	75	9.60	34.83	26.90
104	9.30	34.87	100	9.35	34.86	26.97
155	8.49	34.96	150	8.60	34.95	27.16
206	4.40	34.40	200	4.65	34.46	27.31
310	5.69	34.90	300	5.60	34.86	27.51
355	4.20	34.75	400	4.40	34.82	27.62
531	4.96	35.02	600	4.75	35.01	27.73
706	4.37	34.97	800	4.10	34.94	27.75
900	3.86	34.93	1,000	3.75	34.93	27.77
1,415	3.54	34.91				

Station 6164; May 25–26; latitude 43°50′ N., longitude 47°59′ W.; depth 3,841 m.; dynamic height 970.943.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	5.39	33.45	0	5.39	33.45	26.42
23	5.48	33.56	25	5.45	33.57	26.52
47	3.96	33.74	50	3.90	33.77	26.84
70	3.43	34.04	75	3.45	34.10	27.14
94	3.95	34.31	100	3.85	34.33	27.29
140	3.15	34.39	150	3.10	34.46	27.47
186	3.14	34.55	200	3.15	34.57	27.55
280	3.25	34.68	300	3.55	34.76	27.66
305	3.67	34.77	400	4.00	34.87	27.71
470	4.06	34.91	600	4.00	34.90	27.73
643	3.92	34.89	800	3.70	34.92	27.78
823	3.70	34.92	1,000	3.55	34.92	27.79
1,305	3.48	34.92				

Station 6165; May 26; latitude 43°58′ N., longitude 48°36′ W.; depth 3,109 m.; dynamic height 970.905.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	4.12	33.48	0	4.12	33.48	26.59
21	3.90	33.47	25	3.40	33.49	26.66
42	1.59	33.70	50	2.45	33.89	27.06
63	4.02	34.23	75	4.10	34.32	27.26
83	4.07	34.36	100	4.00	34.42	27.35
125	3.83	34.50	150	3.90	34.63	27.52
167	4.00	34.68	200	4.15	34.75	27.59
250	4.26	34.84	300	4.30	34.90	27.69
322	4.33	34.92	400	4.05	34.92	27.74
462	3.81	34.92	600	3.85	34.93	27.76
590	3.83	34.93	800	3.55	34.92	27.79
786	3.57	34.92	1,000	3.50	34.92	27.80
1,358	3.37	34.91				

Station 6166; May 26; latitude 44°04′ N., longitude 48°51′ W.; depth 1,646 m.; dynamic height 970.956.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	2.23	32.98	0	2.23	32.98	26.36
27	1.08	33.24	25	1.15	33.22	26.63
52	0.66	33.54	50	0.70	33.51	26.89
79	0.94	33.76	75	0.85	33.72	27.05
105	1.53	33.97	100	1.40	33.83	27.09
158	2.01	34.26	150	1.95	34.21	27.37
210	2.76	34.58	200	2.60	34.52	27.56
315	3.77	34.74	300	3.70	34.72	27.62
375	3.70	34.81	400	3.70	34.83	27.70
557	3.72	34.88	600	3.70	34.88	27.74
737	3.56	34.89	800	3.50	34.89	27.77
926	3.45	34.885	1,000	3.45	34.89	27.77
1,405	3.45	34.90				

STATIONS OCCUPIED IN 1956—Continued

Station 6167; May 26; latitude 44°06′ N., longitude 48°58′ W.; depth 835 m.; dynamic height 971.040.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.26	32.90	0	1.26	32.90	26.36
25	−0.07	33.07	25	−0.07	33.07	26.57
50	−0.32	33.28	50	−0.32	33.28	26.75
75	−0.49	33.37	75	−0.49	33.37	26.83
101	−0.13	33.52	100	−0.15	33.51	26.94
151	1.28	33.97	150	1.30	33.96	27.21
201	1.57	34.18	200	1.55	34.18	27.36
302	2.10	34.38	300	2.10	34.38	27.48
388	2.33	34.44	400	2.40	34.45	27.52
583	3.49	34.79	600	3.55	34.82	27.71

Station 6168; May 26; latitude 44°08′ N., longitude 49°06′ W.; depth 162 m.; dynamic height 971.098.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.86	33.02	0	2.86	33.02	26.34
25	2.74	33.02	25	2.74	33.02	26.35
49	−0.55	33.10	50	−0.60	33.10	26.61
74	−0.72	33.14	75	−0.70	33.14	26.66
98	−0.59	33.19	100	−0.60	33.19	26.69
147	0.26	33.61	150	0.30	33.65	27.02

Station 6169; May 26; latitude 44°10′ N., longitude 49°12′ W.; depth 56 m.; dynamic height 971.100.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.43	33.04	0	3.43	33.04	26.30
26	2.62	33.08	25	2.65	33.08	26.41
42	0.87	33.09	(50)	0.20	33.09	26.57

Station 6170; May 26; latitude 44°11′N., longitude 49° 18′ W.; depth 46 m.; dynamic height 971.101.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.91	33.05	0	3.91	33.05	26.26
24	3.55	33.06	25	3.45	33.06	26.31
34	1.97	33.10				

Station 6171; May 26; latitude 44°58′ N., longitude 49°18′ W.; depth 91 m.; dynamic height 971.098.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.04	32.88	0	3.04	32.88	26.22
25	1.42	32.92	25	1.42	32.92	26.37
50	−0.55	33.04	50	−0.55	33.04	26.57
75	−0.62	33.20	75	−0.62	33.20	26.70

Station 6172; May 26; latitude 44°56.5′ N., longitude 49°05′ W.; depth 95 m.; dynamic height 971.094.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.54	32.83	0	1.54	32.83	26.29
25	−0.10	32.98	25	−0.10	32.98	26.50
50	−0.77	33.07	50	−0.77	33.07	26.60
75	−0.93	33.14	75	−0.93	33.14	26.67

Station 6173; May 26; latitude 44°55′ N.; longitude 48°58′ W.; depth 686 m.; dynamic height 971.101.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.22	32.81	0	1.22	32.81	26.31
22	0.36	32.89	25	0.20	32.90	26.42
43	−0.69	33.00	50	−0.85	33.03	26.57
64	−1.00	33.07	75	−1.05	33.08	26.62
86	−1.04	33.09	100	−1.00	33.11	26.64
129	−0.76	33.19	150	−0.35	33.36	26.81
173	0.08	33.58	200	0.55	33.75	27.09
259	1.34	34.10	300	2.00	34.34	27.46
341	2.58	34.54	400	2.85	34.61	27.61
537	3.15	34.72	(600)	3.20	34.75	27.69

Station 6174; May 27; latitude 44°53.5′ N., longitude 48°47′ W.; depth 1,170 m.; dynamic height 971.035.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.31	32.92	0	1.31	32.92	26.38
27	0.62	33.14	25	0.65	33.13	26.59
53	0.13	33.32	50	0.20	33.29	26.73
80	−0.22	33.52	75	−0.20	33.48	26.91
105	0.08	33.66	100	0.00	33.63	27.02
159	0.77	33.86	150	0.65	33.83	27.14
212	1.27	34.06	200	1.15	34.01	27.26
317	2.25	34.44	300	2.10	34.39	27.49
317	2.22	34.46	400	2.90	34.64	27.63
480	3.41	34.76	600	3.70	34.84	27.71
647	3.74	34.86	800	3.75	34.88	27.73
835	3.72	34.88	(1,000)	3.70	34.89	27.75

Station 6175; May 27; latitude 44°50.5′ N., longitude 48°33′ W.; depth 1,829 m.; dynamic height 970.911.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.76	33.26	0	2.76	33.26	26.54
26	2.73	33.37	25	2.75	33.37	26.63
51	1.47	33.96	50	1.50	33.94	27.18
77	1.82	34.12	75	1.80	34.10	27.29
102	2.28	34.29	100	2.25	34.27	27.39
152	2.28	34.42	150	2.30	34.41	27.50
203	2.56	34.57	200	2.55	34.56	27.60
305	3.47	34.76	300	3.45	34.75	27.66
418	3.69	34.86	400	3.70	34.85	27.72
627	3.67	34.90	600	3.70	34.90	27.76
837	3.60	34.88	800	3.60	34.89	27.76
1,054	3.61	-------	1,000	3.60	34.94	27.80
1,610	3.41	34.92				

Station 6176; May 27; latitude 44°45′ N., longitude 47°54′ W.; depth 3,182 m.; dynamic height 970.916.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.71	33.76	0	6.71	33.76	26.51
17	6.63	33.77	25	6.15	33.85	26.65
33	5.49	33.94	50	4.30	34.10	27.06
50	4.30	34.09	75	4.40	34.35	27.25
100	4.47	34.57	100	4.50	34.57	27.41
133	4.58	34.64	150	4.60	34.70	27.50
199	4.63	34.87	200	4.65	34.87	27.64
379	4.51	34.94	300	4.60	34.92	27.68
574	4.08	34.95	400	4.45	34.94	27.71
773	3.82	34.93	600	4.05	34.95	27.76
980	3.65	34.93	800	3.80	34.93	27.77
1,511	3.42	34.91	1,000	3.65	34.93	27.78

Station 6177; May 27; latitude 44°38.5′ N., longitude 47°16′ W.; depth 3,658 m.; dynamic height 970.943.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.53	33.62	0	7.53	33.62	26.28
24	7.47	33.65	25	7.45	33.66	26.33
48	6.09	34.13	50	5.80	34.13	26.91
72	3.77	34.13	75	3.70	34.13	27.14
95	3.52	34.26	100	3.55	34.29	27.28
144	4.33	34.62	150	4.35	34.64	27.48
192	4.13	34.72	200	4.15	34.73	27.57
287	4.49	34.86	300	4.45	34.87	27.66
377	*4.24	34.93	400	4.20	34.93	27.73
568	4.08	34.945	600	4.05	34.94	27.75
762	3.78	34.93	800	3.75	34.93	27.77
968	3.70	34.93	1,000	3.70	34.93	27.78
1,511	3.43	34.92				

Station 6178; May 27; latitude 44°31.5′ N., longitude 46°37′ W; depth 3,841 m; dynamic height 970.974

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.87	33.56	0	7.87	33.56	26.18
23	7.80	33.57	25	7.75	33.59	26.22
46	5.32	33.89	50	5.20	33.90	26.81
69	4.96	33.96	75	4.65	33.99	26.93
93	3.33	34.08	100	3.40	34.14	27.18
138	4.09	34.53	150	4.25	34.57	27.44
184	4.38	34.66	200	4.40	34.69	27.51
277	4.46	34.84	300	4.45	34.86	27.65
350	4.35	34.90	400	4.35	34.93	27.71
528	4.43	34.98	600	4.35	34.96	27.74
708	4.00	34.93	800	3.90	34.93	27.76
919	3.79	34.93	1,000	3.75	34.93	27.77
1,508	3.48	34.92				

Station 6179; May 28; latitude 44°25′ N., longitude 45′59° W.; depth 3,951 m.; dynamic height 970.980.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.79	33.62	0	7.79	33.62	26.25
25	7.75	33.61	25	7.75	33.61	26.24
49	4.38	33.77	50	4.25	33.77	26.80
73	3.29	33.96	75	3.25	33.97	27.06
97	3.33	34.14	100	3.25	34.16	27.21
147	5.33	34.63	150	5.25	34.63	27.37
196	4.42	34.62	200	4.40	34.62	27.46
293	4.45	34.82	300	4.45	34.83	27.62
402	4.53	34.93	400	4.50	34.93	27.69
599	4.22	34.95	600	4.20	34.95	27.75
795	3.86	34.93	800	3.85	34.93	27.76
1,002	3.73	34.925	1,000	3.75	34.92	27.77
1,534	3.46	34.92				

Station 6180; May 28; latitude 44°18.5′ N., longitude 45°20′ W.; depth 4,481 m.; dynamic height 971.015.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.90	33.99	0	8.90	33.99	26.36
21	9.04	34.01	25	8.65	34.03	26.43
42	7.33	34.16	50	7.30	34.26	26.82
63	7.30	34.46	75	6.65	34.39	27.00
84	6.23	34.32	100	6.50	34.41	27.04
126	6.98	34.58	150	5.55	34.46	27.20
168	4.62	34.37	200	4.45	34.15	27.32
252	4.27	34.61	300	4.10	34.67	27.54
320	*4.03	34.70	400	4.50	34.85	27.63
485	5.04	35.02	600	4.45	34.98	27.74
656	4.14	34.96	800	3.95	34.95	27.77
838	3.93	34.95	1,000	3.75	34.94	27.78
1,317	3.52	34.92				

Station 6181; May 28; latitude 44°49.5′ N., longitude 45°15′ W.; depth 4,207 m.; dynamic height 971.046.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.64	33.78	0	8.64	33.78	26.24
27	8.69	33.82	25	8.70	33.82	26.26
52	6.46	34.06	50	6.60	34.03	26.72
79	6.68	34.32	75	6.60	34.28	26.92
105	7.63	34.58	100	7.45	34.53	27.00
158	7.34	34.75	150	7.40	34.74	27.18
210	6.12	34.66	200	6.30	34.67	27.28
315	6.25	34.97	300	6.25	34.94	27.49
434	5.26	34.975	400	5.50	34.97	27.61
649	4.48	34.96	600	4.60	34.96	27.71
865	4.01	34.995	800	4.15	34.98	27.77
1,085	3.70	34.95	1,000	3.80	34.97	27.81
1,640	3.44	34.925				

Station 6182; May 28; latitude 45°21.5′ N., longitude 45°16′ W.; depth 4,262 m.; dynamic height 971.001.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.90	34.02	0	8.90	34.02	26.39
26	8.58	34.18	25	8.60	34.18	26.56
51	7.50	34.52	50	7.55	34.52	26.98
77	5.80	34.30	75	5.80	34.31	27.06
102	7.15	34.68	100	7.05	34.66	27.17
153	6.69	34.72	150	6.70	34.72	27.26
204	6.41	34.79	200	6.45	34.78	27.34
306	4.74	34.74	300	4.80	34.74	27.51
387	4.73	34.87	400	4.70	34.89	27.64
584	4.66	35.00	600	4.60	35.00	27.74
784	4.09	34.96	800	4.05	34.96	27.77
987	3.77	34.935	1,000	3.75	34.94	27.78
1,509	3.43	34.91				

STATIONS OCCUPIED IN 1956—Continued

Station 6183; May 28; latitude 45°23′ N., longitude 46°02′ W.; depth 3,521 m.; dynamic height 970.935.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.43	33.48	0	4.43	33.48	26.56
26	4.44	33.49	25	4.45	33.49	26.56
51	3.77	33.86	50	3.80	33.85	26.91
77	3.99	34.17	75	4.00	34.15	27.13
102	3.99	34.30	100	4.00	34.29	27.24
153	2.94	34.40	150	3.00	34.39	27.42
204	3.74	34.62	200	3.70	34.60	27.52
306	4.04	34.87	300	4.05	34.86	27.69
395	4.00	34.90	400	4.00	34.90	27.73
594	3.82	34.91	600	3.80	34.91	27.76
793	3.73	34.92	800	3.75	34.92	27.77
993	3.51	34.91	1,000	3.50	34.91	27.79
1,494	3.38	34.90				

Station 6184; May 28; latitude 45°24.5′ N., longitude 46°40′ W.; depth 3,292 m.; dynamic height 970.967.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.81	33.92	0	6.81	33.92	26.61
25	6.80	33.93	25	6.80	33.93	26.62
49	5.80	34.05	50	5.70	34.05	26.86
74	4.87	34.09	75	4.85	34.09	26.99
98	4.71	34.29	100	4.70	34.30	27.17
146	4.92	34.54	150	4.90	34.55	27.35
196	4.36	34.60	200	4.40	34.61	27.46
294	4.68	34.88	300	4.70	34.89	27.64
313	4.69	34.90	400	4.55	34.93	27.69
472	4.26	34.94	600	3.85	34.91	27.75
633	3.79	34.90	800	3.75	34.90	27.75
812	3.77	34.905	1,000	3.70	34.91	27.77
1,296	3.57	34.93				

Station 6185; May 29; latitude 45°24′ N., longitude 47°22′ W.; depth 2,743 m.; dynamic height 970.934.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.19	33.50	0	3.19	33.50	26.69
19	3.14	33.51	25	3.90	33.66	26.76
38	5.38	34.02	50	4.70	34.02	26.96
57	4.07	34.01	75	1.75	33.96	27.17
76	1.81	33.96	100	2.45	34.15	27.27
114	2.80	34.25	150	2.30	34.33	27.43
152	2.29	34.34	200	3.20	34.57	27.45
228	3.71	34.70	300	3.80	34.83	27.69
286	3.76	34.81	400	4.10	34.91	27.73
426	4.14	34.92	600	3.85	34.90	27.74
564	3.89	34.90	800	3.70	34.91	27.77
728	3.74	34.915	1,000	3.55	34.91	27.78
1,178	3.43	34.91				

Station 6186; May 29; latitude 45°37′ N., longitude 47°40′ W.; depth 1,417 m.; dynamic height 970.914.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.36	33.27	0	2.36	33.27	26.58
26	3.62	33.58	25	3.65	33.58	26.71
51	3.88	34.02	50	3.85	34.01	27.04
76	3.30	34.20	75	3.30	34.20	27.24
101	3.71	34.45	100	3.70	34.44	27.39
152	4.60	34.71	150	4.60	34.70	27.50
203	4.57	34.81	200	4.60	34.80	27.58
304	4.78	34.96	300	4.75	34.96	27.69
342	4.59	34.96	400	4.35	34.95	27.73
532	3.92	34.92	600	3.75	34.91	27.76
735	3.55	34.90	800	3.50	34.89	27.77
925	3.42	34.88	1,000	3.40	34.88	27.77
1,183	3.38	34.89				

Station 6187; May 29; latitude 45°45′ N., longitude 47°58′ W.; depth 640 m.; dynamic height 971.031.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.96	32.94	0	0.96	32.94	26.42
26	0.53	32.99	25	0.55	32.99	26.48
51	−0.25	33.24	50	−0.25	33.23	26.71
77	−0.77	33.37	75	−0.75	33.36	26.83
103	−0.23	33.58	100	−0.30	33.55	26.97
153	1.07	34.01	150	1.00	33.98	27.24
205	1.62	34.18	200	1.60	34.17	27.36
308	2.49	34.54	300	2.40	34.52	27.58
384	2.98	34.65	400	3.10	34.67	27.64
590	3.68	34.82	600	3.70	34.83	27.70

Station 6188; May 29; latitude 45°49.5′ N., longitude 48°07′ W.; depth 176 m.; dynamic height 971.057.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.26	32.91	0	0.26	32.91	26.43
24	0.04	32.92	25	0.05	32.92	26.45
48	−0.40	32.98	50	−0.50	33.00	26.54
72	−1.38	33.25	75	−1.35	33.29	26.79
96	−0.70	33.43	100	−0.65	33.44	26.90
145	−0.06	33.59	150	0.00	33.60	27.00

Station 6189; May 29; latitude 45°52.5′ N., longitude 48°14′ W.; depth 121 m.; dynamic height 971.069.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.31	32.83	0	1.31	32.83	26.31
25	1.02	32.85	25	1.02	32.85	26.35
49	0.13	32.97	50	0.10	32.98	26.50
74	−0.74	33.20	75	−0.75	33.20	26.71
98	−0.85	33.30	100	−0.85	33.31	26.79

STATIONS OCCUPIED IN 1956—Continued

Station 6190; May 29; latitude 45°59′ N., longitude 48°31′ W.; depth 93 m.; dynamic height 971.071.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.66	32.99	0	2.66	32.99	26.34
26	2.65	32.99	25	2.65	32.99	26.34
52	1.29	33.01	50	1.45	33.00	26.44
78	−0.39	33.26	75	−0.25	33.23	26.71

Station 6191; May 29; latitude 46°06′ N., longitude 48°42′ W.; depth 70 m.; dynamic height 971.071.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.34	33.00	0	2.34	33.00	26.37
28	2.32	33.01	25	2.35	33.01	26.38
56	1.50	33.01	50	1.70	33.01	26.43

Station 6192; May 29; latitude 46°17′ N., longitude 48°58′ W.; depth 68 m.; dynamic height 971.071.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.20	32.99	0	3.20	32.99	26.29
27	3.20	33.00	25	3.20	33.00	26.30
54	0.92	33.10	50	1.15	33.08	26.52

Station 6193; May 29; latitude 46°14.5′ N., longitude 48°34′ W.; depth 91 m.; dynamic height 971.071.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.65	33.00	0	2.65	33.00	26.35
25	2.66	33.02	25	2.66	33.02	26.36
50	1.90	33.02	50	1.90	33.02	26.42
75	0.19	33.21	75	0.19	33.21	26.68

Station 6194; May 29–30; latitude 46°12′ N., longitude 48°02′ W.; depth 114 m.; dynamic height 971.076.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.13	32.93	0	2.13	32.93	26.33
23	2.13	32.93	25	2.10	32.93	26.33
47	1.35	32.91	50	1.25	32.91	26.37
70	0.63	32.96	75	0.45	33.05	26.54
93	−0.29	33.39	(100)	−0.55	33.53	26.96

Station 6195; May 30; latitude 46°10.5′ N., longitude 47°43′ W.; depth 170 m.; dynamic height 971.090.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.61	32.80	0	0.61	32.80	26.33
25	0.25	32.83	25	0.25	32.83	26.37
50	−0.21	32.92	50	−0.21	32.92	26.46
74	−0.54	32.96	75	−0.55	32.96	26.50
99	−1.20	33.07	100	−1.20	33.08	26.62
148	−0.68	33.40	150	−0.65	33.42	26.89

Station 6196; May 30; latitude 46°10′ N., longitude 47°26′ W.; depth 695 m.; dynamic height 971.059.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.63	32.82	0	0.63	32.82	26.34
25	0.56	32.84	25	0.56	32.84	26.36
50	−0.64	33.00	50	−0.64	33.00	26.55
75	−1.26	33.13	75	−1.26	33.13	26.66
100	−1.38	33.20	100	−1.38	33.20	26.73
148	0.22	33.65	150	0.25	33.67	27.05
198	1.08	33.93	200	1.15	33.94	27.19
298	2.43	34.50	300	2.45	34.50	27.55
400	2.82	34.63	400	2.85	34.63	27.62
603	3.71	34.84	600	3.70	34.84	27.71

Station 6197; May 30; latitude 46°10′ N., longitude 47°08′ W.; depth 1,554 m.; dynamic height 970.902.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.35	33.21	0	2.35	33.21	26.54
25	3.35	33.71	25	3.35	33.71	26.85
50	2.48	33.99	50	2.48	33.99	27.14
75	3.56	34.30	75	3.56	34.30	27.29
101	3.25	------	100	3.25	34.36	27.37
151	2.51	34.53	150	2.50	34.53	27.57
201	2.85	34.62	200	2.85	34.62	27.62
302	3.37	34.76	300	3.35	34.76	27.68
392	3.73	34.90	400	3.75	34.90	27.75
590	3.66	34.865	600	3.65	34.89	27.75
788	3.53	34.885	800	3.50	34.88	27.76
990	3.45	34.87	1,000	3.45	34.87	27.76
1,503	3.36	34.875				

Station 6198; May 30; latitude 46°09′ N., longitude 46°37′ W.; depth 512 m.; dynamic height 970.874.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.48	33.76	0	3.48	33.76	26.87
25	2.55	33.98	25	2.55	33.98	27.13
49	2.28	34.20	50	2.30	34.20	27.33
74	2.27	34.28	75	2.30	34.28	27.39
98	2.56	34.40	100	2.60	34.42	27.48
147	3.45	34.68	150	3.50	34.69	27.61
197	4.80	34.90	200	4.80	34.91	27.65
295	4.67	34.96	300	4.65	34.96	27.71
393	3.89	34.87	400	3.90	34.87	27.72
491	3.59	34.905				

Station 6199; May 30; latitude 46°05.5′ N., longitude 45°55′ W.; depth 1,646 m.; dynamic height 970.894.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.52	33.75	0	4.52	33.75	26.76
26	4.07	33.80	25	4.10	33.80	26.84
51	3.64	34.22	50	3.65	34.20	27.21
77	3.67	34.30	75	3.70	34.29	27.27
102	3.50	34.48	100	3.50	34.46	27.43
152	3.42	34.61	150	3.40	34.60	27.55
203	3.58	34.74	200	3.60	34.73	27.63
305	3.80	34.86	300	3.80	34.86	27.72
392	3.74	34.86	400	3.75	34.86	27.72
586	3.60	34.88	600	3.60	34.88	27.75
779	3.54	34.90	800	3.55	34.90	27.77
980	3.59	34.92	1,000	3.60	34.92	27.79
1,492	3.38	34.905				

Station 6200; May 30; latitude 46°01.5′ N., longitude 45°15′ W.; depth 3,292 m.; dynamic height 970.992.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.41	33.98	0	7.41	33.98	26.58
24	7.67	34.09	25	7.65	34.09	26.63
48	6.12	34.24	50	6.00	34.24	26.97
72	5.69	34.26	75	5.70	34.28	27.04
96	6.07	34.47	100	6.15	34.50	27.16
143	6.44	34.72	150	6.40	34.73	27.30
192	6.02	34.77	200	5.95	34.78	27.40
288	5.43	34.83	300	5.35	34.83	27.52
417	4.31	34.86	400	4.50	34.86	27.64
623	3.97	34.92	600	4.00	34.91	27.74
830	3.96	34.94	800	3.95	34.94	27.76
1,024	3.76	34.93	1,000	3.80	34.93	27.77
1,488	3.41	34.92				

Station 6201; May 30-31; latitude 46°01′ N., longitude 44°40′ W.; depth 3,475 m.; dynamic height 971.023.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.36	33.70	0	9.36	33.70	26.06
25	8.86	34.02	25	8.86	34.02	26.40
50	7.66	34.35	50	7.66	34.35	26.83
75	8.18	34.65	75	8.18	34.65	26.99
101	5.62	34.34	100	5.60	34.34	27.19
150	4.61	34.38	150	4.61	34.38	27.25
200	4.64	34.56	200	4.64	34.56	27.39
301	4.40	34.71	300	4.40	34.71	27.53
405	5.02	34.94	400	5.00	34.93	27.64
602	4.50	34.95	600	4.50	34.95	27.71
797	3.86	34.90	800	3.85	34.90	27.74
1,000	3.76	34.92	1,000	3.80	34.92	27.77
1,511	3.41	34.91				

Station 6202; May 31; latitude 46°22′ N., longitude 44°41′ W.; depth 1,390 m.; dynamic height 970.953.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.90	33.74	0	5.90	33.74	26.60
24	5.78	33.78	25	5.75	33.79	26.65
49	4.28	33.93	50	4.25	33.94	26.94
73	4.15	34.10	75	4.15	34.12	27.10
98	4.12	34.22	100	4.10	34.23	27.18
145	3.82	34.36	150	3.75	34.38	27.34
194	3.30	34.50	200	3.30	34.52	27.50
292	3.43	34.71	300	3.45	34.73	27.64
350	3.49	34.82	400	3.50	34.83	27.72
529	3.47	34.85	600	3.45	34.85	27.74
711	3.45	34.86	800	3.45	34.86	27.75
907	3.43	34.87	1,000	3.45	34.88	27.76
1,217	3.45	34.89				

Station 6203; May 31; latitude 46°28′ N., longitude 44°42′ W.; depth 421 m.; dynamic height 970.909.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.18	34.04	0	6.18	34.04	26.79
24	6.07	34.13	25	6.05	34.13	26.88
49	4.61	34.22	50	4.50	34.22	27.14
73	4.08	34.24	75	4.05	34.25	27.21
98	3.86	34.39	100	3.85	34.39	27.34
146	3.70	34.47	150	3.65	34.47	27.42
195	3.27	34.54	200	3.25	34.55	27.52
293	3.48	34.79	300	3.50	34.80	27.70
350	3.50	34.84	(400)	3.55	34.87	27.75

Station 6204; May 31; latitude 46°35′ N., longitude 44°41′ W.; depth 227 m.; dynamic height 970.881.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.70	34.14	0	5.70	34.14	26.93
23	5.46	34.20	25	5.40	34.20	27.01
46	4.46	34.30	50	4.25	34.32	27.24
69	3.86	34.42	75	3.85	34.43	27.37
92	3.81	34.45	100	3.80	34.46	27.40
138	3.28	34.50	150	3.30	34.53	27.50
184	3.34	34.66	(200)	3.40	34.73	27.65

Station 6205; May 31; latitude 46°40.5′ N., longitude 44°42′ W.; depth 172 m.; dynamic height 970.877.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.67	34.16	0	5.67	34.16	26.95
25	5.36	34.20	25	5.36	34.20	27.02
49	3.73	34.35	50	3.75	34.35	27.32
74	3.78	34.41	75	3.80	34.41	27.36
99	3.69	34.47	100	3.65	34.47	27.42
148	3.18	34.56	150	3.45	34.56	27.51

Station 6206; May 31; latitude 46°49.5′ N., longitude 44°43′ W.; depth 139 m.; dynamic height 970.890.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.76	34.12	0	5.76	34.12	26.91
24	5.42	34.16	25	5.40	34.16	26.98
49	5.20	34.19	50	5.15	34.19	27.03
73	3.82	34.37	75	3.80	34.38	27.33
98	3.53	34.39	100	3.50	34.39	27.37
127	3.33	34.44				

Station 6207; May 31; latitude 46°50.5′ N., longitude 44°54′ W.; depth 159 m.; dynamic height 970.897.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.97	34.12	0	5.97	34.12	26.88
26	5.81	34.11	25	5.80	34.11	26.90
52	4.00	34.20	50	4.05	34.19	27.16
78	3.80	34.28	75	3.85	34.27	27.25
104	3.66	34.35	100	3.70	34.34	27.31
157	3.37	34.41	150	3.40	34.40	27.39

Station 6208; May 31; latitude 46°50′ N., longitude 45°20′ W.; depth 224 m.; dynamic height 970.886.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.74	34.12	0	5.74	34.12	26.91
22	5.66	34.12	25	5.60	34.13	26.93
44	4.39	34.22	50	4.15	34.23	27.18
67	3.88	34.25	75	3.85	34.27	27.25
89	3.79	34.33	100	3.60	34.38	27.35
133	3.16	34.51	150	3.25	34.57	27.54
177	3.48	34.65	(200)	3.55	34.71	27.62

STATIONS OCCUPIED IN 1956—Continued

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
Station 6209; May 31; latitude 46°51′ N., longitude 45°42′ W.; depth 263 m.; dynamie height 970.875.						
0	5.55	34.15	0	5.55	34.15	26.96
24	5.45	34.15	25	5.45	34.15	26.97
46	3.96	34.24	50	3.90	34.25	27.22
70	3.82	34.30	75	3.75	34.32	27.29
93	3.42	34.42	100	3.40	34.45	27.43
140	3.34	34.58	150	3.40	34.62	27.57
187	3.58	34.77	200	3.60	34.79	27.68
222	3.58	34.82				
Station 6210; May 31; latitude 46°50.5′ N., longitude 45°59′ W.; depth 326 m.; dynamie height 970.896.						
0	5.47	34.14	0	5.47	34.14	26.96
26	5.45	34.14	25	5.45	34.14	26.96
52	5.15	34.16	50	5.20	34.16	27.01
78	4.07	34.26	75	4.20	34.25	27.19
104	3.59	34.32	100	3.65	34.31	27.30
155	3.32	34.56	150	3.35	34.54	27.50
207	3.45	34.72	200	3.45	34.70	27.62
311	3.55	34.86	300	3.60	34.85	27.73
Station 6211; May 31; latitude 46°50′ N., longitude 46°24° W.; depth 657 m.; dynamic height 970.881.						
0	3.90	33.74	0	3.90	33.74	26.82
25	3.89	33.77	25	3.89	33.77	26.84
50	2.52	34.08	50	2.52	34.08	27.21
75	2.93	34.32	75	2.93	34.32	27.37
100	2.91	34.47	100	2.91	34.47	27.49
150	3.05	34.60	150	3.05	34.60	27.58
200	3.59	34.74	200	3.59	34.74	27.64
300	3.92	34.89	300	3.92	34.89	27.72
412	3.49	34.88	400	3.55	34.88	27.75
618	3.49	34.90	600	3.50	34.90	27.78
Station 6212; May 31; latitude 46°48.5′ N., longitude 46°43′ W.; depth 1,225 m.; dynamic height 970.914.						
0	2.07	33.26	0	2.07	33.26	26.60
25	2.32	33.44	25	2.32	33.44	26.72
49	2.18	33.78	50	2.15	33.80	27.02
74	1.16	34.06	75	1.15	34.07	27.31
98	2.28	34.24	100	2.35	34.26	27.37
147	3.10	34.51	150	3.10	34.52	27.52
197	2.97	34.61	200	3.00	34.62	27.61
295	3.17	34.73	300	3.20	34.74	27.68
365	3.76	34.85	400	3.75	21.87	27.73
553	3.60	34.88	600	3.55	34.88	27.75
745	3.50	34.85	800	3.50	34.86	27.75
1,051	3.42	34.88	1,000	3.15	34.87	27.76
Station 6213; June 1; latitude 46°47.5′ N., longitude 47°05′ W.; depth 640 m.; dynamie height 970.988.						
0	1.75	32.98	0	1.75	32.98	26.40
20	1.70	32.98	25	1.50	33.02	26.44
40	0.21	33.18	50	0.15	33.28	26.73
60	0.16	33.36	75	0.20	33.48	26.89
80	0.22	33.52	100	0.50	33.66	27.02
120	0.74	33.82	150	0.75	34.06	27.33
160	0.74	34.14	200	1.35	34.35	27.52
240	1.98	34.52	300	2.70	34.61	27.62
375	3.27	34.70	400	3.40	34.72	27.65
547	3.70	34.86	(600)	3.70	34.89	27.75
Station 6214; June 1; latitude 46°46.5′ N., longitude 47°13′ W.; depth 329 m.; dynamie height 971.018.						
0	1.13	32.82	0	1.13	32.82	26.31
23	0.84	32.89	25	0.80	32.91	26.40
46	−0.07	33.23	50	−0.20	33.24	26.72
69	−0.40	33.28	75	−0.45	33.30	26.77
93	−0.47	33.49	100	−0.35	33.58	26.99
138	0.72	33.88	150	0.90	33.94	27.22
184	1.40	34.09	200	1.60	34.17	27.36
277	2.64	34.55	(300)	2.95	34.66	27.64
Station 6215; June 1; latitude 46°45′ N., longitude 47°30′ W.; depth 178 m.; dynamic height 971.089.						
0	1.77	32.74	0	1.77	32.74	26.20
27	1.46	-------	25	1.50	32.74	26.22
53	0.99	32.77	50	1.05	32.76	26.27
80	0.14	32.82	75	0.35	32.81	26.35
106	−1.43	33.11	100	−1.20	33.05	26.60
160	*−0.62	33.47	(150)	−0.80	33.41	26.88
Station 6216; June 1; latitude 46°44′ N., longitude 48°05′ W.; depth 117 m.; dynamie height 971.064.						
0	2.11	32.83	0	2.11	32.83	26.25
25	1.52	32.89	25	1.52	32.89	26.33
51	−0.68	33.04	50	−0.65	33.03	26.57
76	−0.76	33.27	75	−0.75	33.27	26.76
102	−0.50	33.32	100	−0.55	33.32	26.79
Station 6217; June 1; latitude 46°48′ N., longitude 48°43′ W.; depth 84 m.; dynamie height 971.065.						
0	3.05	33.00	0	3.05	33.00	26.31
24	2.90	33.00	25	2.90	33.00	26.33
49	0.83	33.14	50	0.80	33.14	26.59
73	0.68	-------	75	0.65	33.27	26.70

STATIONS OCCUPIED IN 1956—Continued

Station 6218; June 12; latitude 47°11.5′ N., longitude 49°15′ W.; depth 96 m.; dynamic height 971.108.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	3.38	32.72	0	3.38	32.72	26.05
25	3.14	32.70	25	3.14	32.70	26.06
49	0.70	32.93	50	0.60	32.94	26.44
74	−0.51	33.15	75	−0.55	33.16	26.66

Station 6219; June 12; latitude 47°12′ N., longitude 48°40′ W.; depth 115 m.; dynamic height 971.108.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	3.61	32.66	0	3.61	32.66	25.99
26	2.53	32.82	25	2.55	32.82	26.21
51	0.55	32.88	50	0.60	32.88	26.39
77	−0.82	33.08	75	−0.80	33.07	26.60
103	−0.50	33.27	100	−0.55	33.25	26.74

Station 6220; June 12; latitude 47°13′ N., longitude 47°58′ W.; depth 169 m.; dynamic height 971.117.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	3.42	32.60	0	3.42	32.60	25.96
25	3.02	32.64	25	3.02	32.64	26.03
51	−0.16	32.90	50	−0.10	32.89	26.42
76	−1.42	32.98	75	−1.40	32.98	26.55
101	−1.27	33.16	100	−1.30	33.15	26.68
152	−0.32	33.38	150	−0.40	33.37	26.83

Station 6221; June 12; latitude 47°14′ N., longitude 47°40 W.; depth 216 m.; dynamic height 971.113.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.80	32.59	0	2.80	32.59	26.00
25	−1.41	32.86	25	−0.41	32.86	26.42
50	−1.36	33.01	50	−1.36	33.01	26.58
76	−1.47	33.06	75	−1.45	33.06	26.61
101	−1.52	33.06	100	−1.50	33.06	26.61
151	−1.43	33.12	150	−1.45	33.11	26.65
202	−0.29	33.49	200	−0.40	33.47	26.92

Station 6222; June 12-13; latitude 47°15.5′ N., longitude 47°07′ W.; depth 887 m.; dynamic height 971.012.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	3.08	32.86	0	3.08	32.86	26.20
25	0.90	33.06	25	0.90	33.06	26.51
51	−0.43	33.24	50	−0.40	33.23	26.72
76	−0.26	33.47	75	−0.30	33.46	26.90
102	0.39	33.70	100	0.35	33.68	27.04
152	1.60	34.14	150	1.55	34.12	27.32
203	1.94	34.32	200	1.90	34.31	27.45
305	2.75	34.58	300	2.70	34.57	27.59
390	3.01	34.66	400	3.05	34.67	27.64
591	3.65	34.80	600	3.65	34.80	27.68
797	3.59	34.83	800	3.60	34.83	27.71

Station 6223; June 13; latitude 47°17.5′ N., longitude 46°46′ W.; depth 1,188 m.; dynamic height 970.946.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.78	33.19	0	2.78	33.19	26.49
23	2.62	33.51	25	2.55	33.54	26.78
46	1.06	33.72	50	1.05	33.75	27.06
70	1.10	33.92	75	1.15	33.97	27.23
93	1.58	34.20	100	1.65	34.23	27.40
139	2.05	34.36	150	2.15	34.39	27.49
185	2.44	34.48	200	2.55	34.50	27.55
278	3.00	34.61	300	3.10	34.63	27.60
374	3.42	34.70	400	3.50	34.72	27.64
565	3.64	34.84	600	3.65	34.84	27.71
762	3.60	34.86	800	3.60	34.86	27.74
967	3.46	34.86	1,000	3.45	34.86	27.75

Station 6224; June 13; latitude 47°18′ N., longitude 46° 23 W.; depth 622 m.; dynamic height 970.900.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	4.61	33.52	0	4.61	33.52	26.57
24	4.17	33.79	25	4.15	33.80	26.83
48	3.27	34.09	50	3.15	34.10	27.17
73	1.63	34.20	75	1.65	34.20	27.38
97	1.77	34.26	100	1.80	34.27	27.43
144	2.85	34.52	150	2.90	34.53	27.54
193	3.18	34.63	200	3.20	34.64	27.60
290	3.92	34.855	300	3.90	34.86	27.71
400	3.85	-------	400	3.85	34.86	27.71
603	3.54	34.865	600	3.55	34.86	27.74

Station 6225; June 13; latitude 47°19.5′ N., longitude 45°52′ W.; depth 324 m.; dynamic height 970.900.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	5.02	33.57	0	5.02	33.57	26.56
25	4.52	33.75	25	4.52	33.75	26.76
49	3.36	34.15	50	3.35	34.16	27.20
74	3.85	34.34	75	3.85	34.35	27.31
99	4.59	34.60	100	4.60	34.60	27.42
148	3.31	34.57	150	3.35	34.57	27.53
197	3.64	34.69	200	3.65	34.70	27.60
296	3.73	34.84	300	3.75	34.84	27.70

Station 6226; June 13; latitude 47°20.5′ N., longitude 45°29′ W.; depth 261 m.; dynamic height 970.891.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	6.37	34.08	0	6.37	34.08	26.80
25	6.13	34.06	25	6.13	34.06	26.81
49	4.78	34.12	50	4.70	34.12	27.04
74	3.42	34.28	75	3.40	34.29	27.30
98	3.24	34.44	100	3.25	34.45	27.44
147	3.39	34.63	150	3.40	34.64	27.58
196	3.75	34.80	200	3.75	34.80	27.67
250	3.72	34.81				

STATIONS OCCUPIED IN 1956—Continued

Station 6227; June 13; latitude 47°21′ N., longitude 45°15′ W.; depth 224 m.; dynamic height 970.900.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	6.46	34.06	0	6.46	34.06	26.77
25	6.05	34.10	25	6.05	34.10	26.86
50	4.69	34.16	50	4.69	34.16	27.07
75	3.89	34.24	75	3.89	34.24	27.21
100	3.47	34.33	100	3.47	34.33	27.32
150	3.40	34.59	150	3.40	34.59	27.54
200	3.63	34.69	200	3.63	34.69	27.60

Station 6228; June 13; latitude 47°21.5′ N., longitude 45°01′ W.; depth 205 m.; dynamic height 970.898.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	6.84	34.08	0	6.84	34.08	26.74
24	5.78	34.10	25	5.70	34.10	26.90
48	4.70	34.13	50	4.55	34.13	27.05
73	3.51	34.23	75	3.45	34.24	27.25
97	3.29	34.37	100	3.25	34.38	27.38
145	3.20	34.54	150	3.20	34.55	27.53
184	3.50	34.64	(200)	3.65	34.68	27.58

Station 6229; June 13; latitude 47°24.5′ N., longitude 45°09′ W.; depth 224 m.; dynamic height 970.898.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	6.52	34.05	0	6.52	34.05	26.76
25	5.83	34.11	25	5.83	34.11	26.89
50	4.39	34.16	50	4.39	34.16	27.10
75	3.68	34.22	75	3.68	34.22	27.22
100	3.37	34.26	100	3.37	34.26	27.28
151	3.22	34.53	150	3.20	34.53	27.51
201	3.70	34.78	200	3.70	34.78	27.66

Station 6230; June 13; latitude 47°40.5′ N., longitude 45°44′ W.; depth 318 m.; dynamic height 970.901.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	5.88	33.75	0	5.88	33.75	26.60
25	5.30	33.91	25	5.30	33.91	26.80
50	4.51	34.13	50	4.51	34.13	27.06
75	3.80	34.23	75	3.80	34.23	27.21
100	3.42	34.36	100	3.42	34.36	27.35
150	3.20	34.58	150	3.20	34.58	27.55
200	3.84	34.78	200	3.84	34.78	27.64
300	3.69	34.84	300	3.69	34.84	27.71

Station 6231; June 13; latitude 47°44′ N., longitude 45°52′ W.; depth 439 m.; dynamic height 970.897.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	5.26	33.58	0	5.26	33.58	26.51
25	4.61	33.78	25	4.61	33.78	26.77
50	3.77	34.23	50	3.77	34.23	27.22
75	3.52	34.35	75	3.52	34.35	27.34
100	3.31	34.40	100	3.31	34.40	27.40
150	3.23	34.59	150	3.23	34.59	27.56
200	3.96	34.75	200	3.96	31.75	27.61
300	3.88	34.84	300	3.88	34.81	27.69
400	3.56	34.86	400	3.56	34.86	27.74

Station 6232; June 13; latitude 47°51′ N., longitude 46°08′ W.; depth 1,064 m.; dynamic height 970.913.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	4.99	33.69	0	4.99	33.69	26.66
25	4.48	33.77	25	4.48	33.77	26.78
50	3.13	34.09	50	3.13	34.09	27.16
76	2.89	34.25	75	2.90	34.24	27.31
101	3.15	31.42	100	3.15	34.42	27.43
151	2.82	34.50	150	2.85	34.50	27.52
202	3.12	34.59	200	3.15	34.58	27.55
303	3.68	34.79	300	3.65	34.79	27.67
376	3.52	34.80	400	3.50	34.81	27.71
570	3.47	31.85	600	3.45	34.85	27.74
762	3.43	34.86	800	3.45	34.86	27.75
954	3.39	34.86	1,000	3.40	34.86	27.76

Station 6233; June 13–14; latitude 47°58′ N., longitude 46°21′ W.; depth 1,187 m.; dynamic height 970.925.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	4.00	33.34	0	4.00	33.34	26.49
25	3.88	33.67	25	3.88	33.67	26.77
51	1.91	33.89	50	1.95	33.88	27.09
76	2.11	34.28	75	2.10	34.27	27.40
101	2.12	34.40	100	2.15	34.40	27.50
152	2.52	34.52	150	2.50	34.52	27.57
203	2.77	-------	200	2.75	34.57	27.59
304	3.17	34.66	300	3.15	34.66	27.62
382	3.40	34.77	400	3.45	34.78	27.68
575	3.67	34.84	600	3.70	34.84	27.71
770	3.59	34.86	800	3.60	34.86	27.74
966	3.47	34.78	(1,000)	3.45	34.86	27.75

Station 6234; June 14; latitude 48°20′ N., longitude 45°55′ W.; depth 1,188 m.; dynamic height 970.876.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	4.69	33.86	0	4.69	33.86	26.83
25	4.48	34.02	25	4.48	34.02	26.98
50	2.39	34.25	50	2.39	34.25	27.36
75	2.09	34.38	75	2.09	34.38	27.49
100	2.38	34.46	100	2.38	34.46	27.53
150	2.77	34.59	150	2.77	34.59	27.60
200	3.14	34.70	200	3.14	34.70	27.65
300	3.39	34.79	300	3.39	34.79	27.70
404	3.62	34.85	400	3.65	34.85	27.72
607	3.62	34.87	600	3.65	34.87	27.74
813	3.48	34.86	800	3.50	34.87	27.76
1,020	3.40	34.88	1,000	3.40	34.88	27.77

Station 6235; June 14; latitude 48°38.5′ longitude 45°31′ W.; depth 1,171 m.; dynamic height 970.884.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	4.68	33.72	0	4.68	33.72	26.72
25	4.15	34.11	25	4.15	34.11	27.09
50	3.85	34.46	50	3.85	34.46	27.39
75	3.09	31.46	75	3.09	34.46	27.47
99	2.69	34.50	100	2.70	34.50	27.53
149	2.73	34.58	150	2.75	34.58	27.59
199	2.97	34.66	200	3.00	34.66	27.64
298	3.54	34.79	300	3.55	34.79	27.68
399	3.63	34.84	400	3.65	31.84	27.71
596	3.62	34.84	600	3.65	34.86	27.73
791	3.53	34.87	800	3.55	34.87	27.75
1,015	3.42	34.87	1,000	3.45	34.87	27.76

STATIONS OCCUPIED IN 1956—Continued

Station 6236; June 14; latitude 49°00.5′ N., longitude 45°03′ W.; depth 1,554 m.; dynamic height 970.891.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.51	33.80	0	4.51	33.80	26.80
24	4.12	33.93	25	4.05	33.94	26.96
48	2.35	34.20	50	2.35	34.22	27.34
72	2.26	34.32	75	2.25	34.33	27.43
96	2.19	34.37	100	2.20	34.38	27.48
144	2.75	34.55	150	2.80	34.56	27.57
193	3.06	34.67	200	3.10	34.68	27.64
289	3.44	34.78	300	3.45	34.79	27.69
371	3.53	34.84	400	3.55	34.84	27.72
556	3.59	34.83	600	3.60	34.85	27.73
740	3.52	34.83	800	3.50	34.85	27.74
932	3.42	34.85	1,000	3.40	34.85	27.75
1,427	3.27	34.89				

Station 6237; June 14; latitude 49°11′ N., longitude 45°39′ W.; depth 2,743 m.; dynamic height 970.875.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.49	34.50	0	6.49	34.50	27.11
26	5.70	34.49	25	5.70	34.49	27.21
53	5.05	34.48	50	5.10	34.48	27.27
79	4.56	34.55	75	4.65	34.54	27.37
105	3.99	34.59	100	4.10	34.58	27.46
157	3.24	34.65	150	3.30	34.64	27.59
210	3.10	34.68	200	3.15	34.68	27.63
315	3.24	34.73	300	3.20	34.72	27.67
404	3.41	34.825	400	3.45	34.82	27.72
605	3.51	34.82	600	3.50	34.87	27.76
804	3.51	34.88	800	3.50	34.88	27.76
1,010	3.40	34.87	1,000	3.40	34.87	27.77
1,533	3.17	34.88				

Station 6238; June 14; latitude 49°21′ N., longitude 46°18′ W.; depth 3,109 m.; dynamic height 970.894.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.85	34.52	0	6.85	34.52	27.08
24	6.77	34.55	25	6.75	34.55	27.12
48	5.74	34.49	50	5.60	34.49	27.22
73	4.83	34.52	75	4.75	34.52	27.35
97	4.37	34.57	100	4.30	34.57	27.44
146	3.50	34.59	150	3.50	34.59	27.53
194	3.47	34.73	200	3.50	34.74	27.65
291	3.91	34.84	300	3.90	34.84	27.69
380	3.89	34.86	400	3.85	34.86	27.71
573	3.60		600	3.60	34.84	27.72
766	3.53	34.86	800	3.50	34.86	27.75
966	3.44	34.85	1,000	3.45	34.86	27.75
1,482	3.31	34.86				

Station 6239; June 14; latitude 48°58.5′ N., longitude 46°40′ W.; depth 2,743 m.; dynamic height 970.925.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.85	34.48	0	6.85	34.48	27.05
26	6.43	34.50	25	6.45	34.50	27.12
53	6.12	34.51	50	6.15	34.51	27.17
79	5.59	34.51	75	5.70	34.51	27.23
105	4.73	34.49	100	4.90	34.49	27.30
157	3.58	34.53	150	3.65	34.52	27.46
210	4.18	34.78	200	4.05	34.74	27.59
315	3.40	34.77	300	3.50	34.76	27.67
410	3.65	34.81	400	3.65	34.81	27.69
615	3.59	34.82	600	3.60	34.82	27.71
821	3.46	34.83	800	3.45	34.83	27.72
1,028	3.43	34.86	1,000	3.45	34.85	27.74
1,549	3.32	34.88				

Station 6340; June 15; latitude 48°36.5′ N., longitude 47°02′ W.; depth 2,469 m.; dynamic height 970.864.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.58	34.51	0	6.58	34.51	27.11
25	6.09	34.52	25	6.09	34.52	27.18
50	5.76	34.51	50	5.76	34.51	27.22
75	4.77	34.54	75	4.77	34.54	27,36
100	3.94	34.57	100	3.94	34.57	27.47
150	3.54	34.69	150	3.54	34.69	27.60
201	3.54	34.80	200	3.55	34.80	27.69
301	3.55	34.83	300	3.55	34.83	27.71
402	3.48	34.85	400	3.50	34.85	27.74
600	3.48	34.88	600	3.50	34.88	27.76
795	3.42	34.89	800	3.45	34.89	27.77
995	3.36	34.88	1,000	3.35	34.88	27.77
1,499	3.32	34.89				

Station 6241; June 15; latitude 48°14.5′ N., longitude 47°19′ W.; depth 1,646 m.; dynamic height 970.877.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.80	33.43	0	3.80	33.43	26.58
23	2.96	33.65	25	3.00	33.70	26.87
45	3.47	34.35	50	3.60	34.39	27.36
68	3.97	34.50	75	3.65	34.49	27.43
90	2.69	34.47	100	2.80	34.51	27.53
135	3.24	34.69	150	3.25	34.71	27.65
180	3.23	34.74	200	3.25	34.75	27.68
270	3.35	34.78	300	3.45	34.80	27.70
321	3.45	34.82	400	3.50	34.85	27.74
486	3.53	34.86	600	3.55	34.86	27.74
655	3.55	34.86	800	3.50	34.88	27.76
832	3.48	34.88	1,000	3.45	34.88	27.76
1,294	3.37	34.89				

Station 6242; June 15; latitude 48°06.5′ N., longitude 47°26′ W.; depth 704 m.; dynamic height 970.941.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.72	33.32	0	3.72	33.32	26.49
24	2.10	33.46	25	2.05	33.46	26.77
49	1.58	33.67	50	1.55	33.68	26.97
73	0.91	33.94	75	0.95	33.95	27.22
97	1.36	34.12	100	1.40	34.13	27.34
146	2.06	34.35	150	2.10	34.36	27.47
194	2.42	34.50	200	2.45	34.51	27.56
291	3.00	34.66	300	3.05	34.67	27.64
421	3.25	34.76	400	3.25	34.75	27.68
632	3.53	34.83	600	3.50	34.82	27.72

Station 6243; June 15; latitude 47°49′ N., longitude 47°43′ W.; depth 318 m.; dynamic height 971.075.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.64	32.62	0	3.64	32.62	26.96
24	2.92	32.64	25	2.80	32.64	26.04
48	0.13	32.90	50	0.05	32.91	26.44
72	−0.65	33.05	75	−0.75	33.07	26.60
96	−1.14	33.19	100	−1.15	33.22	26.74
143	−0.03	33.65	150	0.20	33.72	27.09
190	1.41	34.05	200	1.50	34.10	27.31
286	2.28	34.40	(300)	2.40	34.44	27.51

Station 6244; June 15; latitude 47°46′ N., longitude 48°10′ W.; depth 260 m.; dynamic height 971.090.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.57	32.63	0	3.57	32.63	25.97
24	0.92	32.77	25	0.75	32.78	26.30
48	−1.42	------	50	−1.40	32.94	26.52
72	−1.37	33.00	75	−1.35	33.01	26.58
96	−1.22	33.04	100	−1.20	33.06	26.61
144	−0.71	33.37	150	−0.50	33.43	26.88
192	1.10	34.01	200	1.15	34.03	27.27
249	1.49	34.16				

Station 6245; June 15; latitude 47°44′ N., longitude 48°28′ W.; depth 222 m.; dynamic height 971.099.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.70	32.55	0	3.70	32.55	25.90
25	1.99	32.67	25	1.99	32.67	26.13
49	−0.74	32.94	50	−0.80	32.94	26.50
74	−1.32	33.03	75	−1.30	33.03	26.58
98	−1.33	33.12	100	−1.35	33.13	26.67
147	−0.73	33.35	150	−0.65	33.37	26.84
196	1.00	33.92	200	1.15	33.96	27.22

Station 6246; June 15; latitude 47°40′ N., longitude 48°57′ W.; depth 178 m.; dynamic height 971.110.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.80	32.53	0	3.80	32.53	25.87
25	2.40	32.59	25	2.40	32.59	26.04
50	−0.19	32.80	50	−0.19	32.80	26.37
76	−1.09	33.02	75	−1.10	33.02	26.57
101	−0.90	33.18	100	−0.90	33.17	26.69
150	−0.40	33.41	150	−0.39	33.41	26.87

Station 6247; June 15; latitude 47°48.5′ N., longitude 48°49′ W.; depth 222 m.; dynamic height 971.101.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.72	32.66	0	3.72	32.66	25.98
26	1.89	32.64	25	2.00	32.64	26.11
52	−1.45	32.95	50	−1.30	32.92	26.50
78	−1.40	33.03	75	−1.40	33.02	26.58
103	−1.34	33.14	100	−1.35	33.12	26.66
154	−0.21	33.49	150	−0.30	33.46	26.90
206	1.07	33.93	200	0.95	33.88	27.16

Station 6248; June 15; latitude 47°59′ N., longitude 48°39 W.; depth 333 m.; dynamic height 971.019.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.49	32.86	0	3.49	32.86	26.15
22	2.69	33.12	25	2.55	33.13	26.45
45	1.85	33.23	50	1.65	33.23	26.60
67	0.87	33.23	75	0.70	33.37	26.77
90	0.46	33.68	100	0.60	33.83	27.14
135	1.87	34.23	150	1.95	34.26	27.41
179	2.06	34.32	200	2.15	34.35	27.46
269	2.38	34.44	(300)	2.50	34.47	27.53

Station 6249; June 15–16; latitude 48°04′ N., longitude 48°34′ W.; depth 677 m.; dynamic height 970.990.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.58	33.01	0	3.58	33.01	26.27
24	1.99	33.17	25	1.95	33.17	26.53
49	0.86	33.41	50	0.85	33.42	26.81
74	0.70	33.73	75	0.70	33.74	27.07
99	1.24	34.07	100	1.25	34.07	27.31
147	1.83	34.20	150	1.85	34.21	27.37
197	2.39	34.38	200	2.40	34.38	27.46
296	2.96	34.61	300	2.95	34.61	27.60
346	3.05	34.66	400	3.10	34.67	27.64
546	3.14	34.70	(600)	3.15	31.71	27.66

STATIONS OCCUPIED IN 1956—Continued

Station 6250; June 16; latitude 48°08′ N., longitude 48°30′ W.; depth 1,188 m.; dynamic height 970.950.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	3.35	33.32	0	3.35	33.32	26.53
27	2.78	33.54	25	2.85	33.52	26.74
53	1.55	33.64	50	1.75	33.63	26.91
80	1.22	33.93	75	1.25	33.86	27.13
106	1.55	34.19	100	1.45	34.14	27.34
160	2.26	34.42	150	2.15	34.38	27.48
213	2.61	34.54	200	2.55	34.51	27.56
319	3.06	34.67	300	3.00	34.65	27.63
434	3.43	34.77	400	3.35	34.74	27.66
646	3.63	34.85	600	3.60	34.84	27.72
864	3.57	34.87	800	3.60	34.86	27.74
1,084	3.51	34.88	1,000	3.55	34.88	27.75

Station 6251; June 16; latitude 48°32.5′ N., longitude 48°04′ W.; depth 2,140 m.; dynamic height 970.876.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	4.53	33.84	0	4.53	33.84	26.83
24	5.50	34.32	25	5.45	34.33	27.11
49	4.53	34.40	50	4.40	34.40	27.29
73	3.33	34.48	75	3.30	34.48	27.46
98	3.20	34.52	100	3.20	34.52	27.51
147	3.23	34.68	150	3.20	34.68	27.63
196	3.13	34.72	200	3.15	34.72	27.67
294	3.46	34.80	300	3.50	34.80	27.70
372	3.53	34.85	400	3.50	34.85	27.74
561	3.38	34.84	600	3.40	34.84	27.74
753	3.47	34.86	800	3.45	34.86	27.75
949	3.41	34.885	1,000	3.40	34.86	27.76
1,453	3.31	34.895				

Station 6252; June 16; latitude 48°50′ N., longitude 47°56′ W.; depth 2,378 m.; dynamic height 970.888.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	5.49	34.08	0	5.49	34.08	26.91
20	6.05	34.48	25	6.00	34.48	27.16
41	5.61	34.47	50	5.20	34.50	27.28
61	4.75	34.54	75	4.50	34.55	27.40
82	4.44	34.55	100	4.05	34.56	27.45
123	3.60	34.57	150	3.55	34.63	27.55
163	3.55	34.66	200	3.45	34.71	27.63
245	3.39	34.77	300	3.85	34.86	27.71
315	3.91	34.88	400	3.65	34.86	27.73
479	3.43	34.84	600	3.45	34.85	27.74
646	3.40	34.85	800	3.50	34.85	27.74
819	3.47	34.85	1,000	3.40	34.85	27.75
1,272	3.35	34.86				

Station 6253; June 16; latitude 49°13′ N., longitude 47°48′ W.; depth 2,469 m.; dynamic height 970.862.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	5.16	34.20	0	5.16	34.20	27.04
26	4.51	34.30	25	4.50	34.30	27.20
52	2.90	34.44	50	2.90	34.43	27.46
77	2.86	34.56	75	2.90	34.56	27.57
103	2.90	34.56	100	2.90	34.56	27.57
154	3.04	34.68	150	3.05	34.67	27.64
206	3.18	34.76	200	3.15	34.75	27.69
309	3.35	34.82	300	3.35	34.82	27.73
415	3.34	34.82	400	3.35	34.82	27.73
620	3.32	34.82	600	3.35	34.82	27.73
823	3.28	34.82	800	3.30	34.82	27.74
1,030	3.39	34.86	1,000	3.40	34.85	27.75
1,550	3.30	34.90				

Station 6254; June 16; latitude 49°39′ N., longitude 47°42′ W.; depth 2,652 m.; dynamic height 970.859.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	5.38	34.49	0	5.38	34.49	27.25
25	5.11	34.49	25	5.11	34.49	27.28
50	4.25	34.50	50	4.25	34.50	27.38
75	3.73	34.58	75	3.73	34.58	27.50
100	3.50	34.65	100	3.50	34.65	27.58
150	3.40	34.73	150	3.40	34.73	27.65
201	3.44	34.77	200	3.45	34.77	27.68
301	3.38	34.81	300	3.40	34.81	27.72
399	3.33	34.82	400	3.35	34.82	27.73
596	3.29	34.83	600	3.30	34.83	27.74
791	3.33	34.83	800	3.35	34.84	27.74
991	3.35	34.87	1,000	3.35	34.87	27.77
1,492	3.28	34.915				

Station 6255; June 16; latitude 49°49.5′ N., longitude 48°20′ W.; depth 2,378 m.; dynamic height 970.865.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	5.51	34.55	0	5.51	34.55	27.28
25	5.17	34.55	25	5.17	34.55	27.32
51	4.26	34.56	50	4.30	34.56	27.43
76	3.82	34.63	75	3.85	34.63	27.52
101	3.53	34.66	100	3.55	34.66	27.58
152	3.75	34.75	150	3.75	34.74	27.62
203	3.54	34.78	200	3.55	34.78	27.67
304	3.76	34.87	300	3.75	34.87	27.73
380	3.50	34.84	400	3.50	34.84	27.73
570	3.35	34.83	600	3.35	34.83	27.73
761	3.30	34.82	800	3.35	34.82	27.73
953	3.38	34.82	1,000	3.35	34.82	27.73
1,436	3.31	34.88				

STATIONS OCCUPIED IN 1956—Continued

Station 6256; June 16–17; latitude 50°01′ N., longitude 48°54′ W.; depth 2,012 m.; dynamic height 970.848.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.45	34.24	0	4.45	34.24	27.15
25	4.53	34.35	25	4.53	34.35	27.23
50	3.14	34.48	50	3.14	34.48	27.48
76	3.03	34.58	75	3.05	34.58	27.56
101	3.06	34.66	100	3.05	34.66	27.63
152	3.25	34.74	150	3.25	34.74	27.67
202	3.32	34.79	200	3.30	34.79	27.71
303	3.37	34.80	300	3.35	34.80	27.71
405	3.35	34.82	400	3.35	34.82	27.73
604	3.36	34.85	600	3.35	34.85	27.75
802	3.30	-------	800	3.35	34.86	27.76
1,003	3.36	34.87	1,000	3.35	34.87	27.77
1,511	3.30	-------				

Station 6257; June 17; latitude 49°37′ N., longitude 49°06′ W.; depth 1,774 m.; dynamic height 970.828.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.02	33.86	0	4.02	33.86	26.89
25	3.77	34.30	25	3.77	34.30	27.28
50	3.12	34.54	50	3.12	34.54	27.53
76	2.98	34.60	75	3.00	34.59	27.58
101	3.20	34.68	100	3.20	34.67	27.63
152	3.31	34.74	150	3.30	34.74	27.67
202	3.39	34.80	200	3.40	34.80	27.71
303	3.45	34.82	300	3.45	34.82	27.72
398	3.55	34.86	400	3.55	34.86	27.74
594	3.53	34.87	600	3.55	34.87	27.75
788	3.41	34.87	800	3.45	34.87	27.76
988	3.44	34.87	1,000	3.45	34.87	27.76
1,496	3.31	34.90				

Station 6258; June 17; latitude 49°13′ N., longitude 49°17′ W.; depth 1,646 m.; dynamic height 970.905.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.36	33.49	0	3.36	33.49	26.67
25	2.18	34.00	25	2.18	34.00	27.18
50	1.34	33.96	50	1.34	33.96	27.21
75	1.79	34.28	75	1.79	34.28	27.43
100	1.91	34.33	100	1.91	34.33	27.46
150	2.46	34.50	150	2.46	34.50	27.55
200	2.84	34.60	200	2.84	34.60	27.60
300	3.36	34.73	300	3.36	34.73	27.65
394	3.31	34.77	400	3.30	34.77	27.70
589	3.44	34.82	600	3.45	34.82	27.72
783	3.37	34.84	800	3.40	34.84	27.74
983	3.40	34.84	1,000	3.40	34.84	27.74
1,488	3.36	34.88				

Station 6259; June 17; latitude 48°44.5′ N., longitude 49°29′ W.; depth 1,170 m.; dynamic height 970.942.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.56	33.28	0	3.56	33.28	26.48
25	3.34	33.36	25	3.34	33.36	26.56
50	1.37	33.64	50	1.37	33.64	26.95
75	1.59	33.95	75	1.59	33.95	27.18
100	2.17	34.32	100	2.17	34.32	27.44
150	2.61	34.52	150	2.61	34.52	27.56
199	2.86	34.60	200	2.85	34.60	27.60
299	3.08	34.72	300	3.10	34.72	27.68
411	3.23	34.75	400	3.20	34.75	27.69
611	3.61	34.79	600	3.65	34.81	27.69
815	3.52	34.81	800	3.55	34.81	27.72
1,018	3.49	34.87	1,000	3.50	34.87	27.76

Station 6260; June 17; latitude 48°33.5′ N., longitude 49°33′ W.; depth 614 m.; dynamic height 970.985.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.57	32.84	0	3.57	32.84	26.14
25	1.20	33.04	25	1.20	33.04	26.48
50	−0.14	33.19	50	−0.14	33.19	26.68
75	0.05	33.55	75	0.05	33.55	26.96
100	0.87	33.92	100	0.87	33.92	27.21
150	1.64	34.23	150	1.64	34.23	27.40
201	2.36	34.42	200	2.35	34.42	27.50
301	2.91	34.60	300	2.90	34.60	27.60
398	3.12	34.72	400	3.15	34.72	27.67
600	3.19	34.77	600	3.20	34.77	27.71

Station 6261; June 17; latitude 48°14.5′ N., longitude 49°40′ W.; depth 224 m.; dynamic height 971.087.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.44	32.57	0	3.44	32.57	25.93
25	0.79	32.69	25	0.79	32.69	26.22
50	−1.31	32.98	50	−0.31	32.98	26.54
76	−1.35	33.08	75	−1.35	33.08	26.62
101	−1.38	33.11	100	−1.35	33.11	26.65
151	−0.36	33.46	150	−0.40	33.45	26.90
202	1.25	34.06	200	1.15	34.03	27.27

Station 6262; June 17; latitude 48°03.5′ N., longitude 49°45′ W.; depth 170 m.; dynamic height 971.093.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.88	32.57	0	3.88	32.57	25.89
25	1.74	32.69	25	1.74	32.69	26.16
50	−0.50	32.90	50	−0.50	32.90	26.45
75	−0.74	33.00	75	−0.74	33.00	26.55
100	−1.14	33.18	100	−1.14	33.18	26.70
150	−1.15	33.55	150	−0.15	33.55	26.97

Station 6263; June 17; latitude 47°48′ N., longitude 49°50′ W.; depth 115 m.; dynamic height 971.104.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.44	32.51	0	4.44	32.51	25.78
25	2.37	32.56	25	2.37	32.56	26.01
51	−0.28	32.82	50	−0.25	32.81	26.38
76	0.07	33.03	75	0.05	33.02	26.53
102	−0.42	33.24	100	−0.35	33.22	26.70

Station 6264; June 17; latitude 47°27′ N., longitude 49°58′ W.; depth 104 m.; dynamic height 971.102.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.15	32.72	0	5.15	32.72	25.87
25	3.43	32.77	25	3.43	32.77	26.09
50	1.80	32.93	50	1.80	32.93	26.35
75	0.64	33.10	75	0.64	33.10	26.56
100	−0.27	33.16	100	−0.27	33.16	26.65

Station 6265; June 18; latitude 47°37.5′ N., longitude 50°22′ W.; depth 115 m.; dynamic height 971.106.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.54	32.56	0	4.54	32.56	25.82
25	2.86	32.56	25	2.86	32.56	25.97
50	0.93	32.76	50	0.93	32.76	26.27
74	0.22	33.10	75	0.20	33.11	26.59
99	−0.18	33.21	100	−0.20	33.21	26.70

Station 6266; June 18; latitude 47°51.5′ N., longitude 50°52′ W.; depth 137 m.; dynamic height 971.111.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	4.49	32.35	0	4.49	32.35	25.66
25	2.65	32.51	25	2.65	32.51	25.95
51	0.26	32.77	50	0.35	32.76	26.30
76	−0.52	33.02	75	−0.50	33.00	26.54
102	−0.78	33.15	100	−0.75	33.14	26.66

Station 6267; June 18; latitude 47°53′ N., longitude 50°56′ W.; depth 148 m.; dynamic height 971.118.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	4.45	32.33	0	4.45	32.33	25.64
25	2.88	32.38	25	2.88	32.38	25.83
49	−0.30	32.71	50	−0.30	32.72	26.30
74	−0.92	32.90	75	−0.95	32.91	26.48
98	−1.21	33.06	100	−1.20	33.07	26.62
133	−0.61	33.24				

Station 6268; June 18; latitude 48°00.5′ N., longitude 51°14′ W.; depth 208 m.; dynamic height 971.123.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	4.72	32.18	0	4.72	32.18	25.49
26	0.91	32.48	25	1.05	32.47	26.04
52	−1.43	32.77	50	−1.30	32.75	26.36
78	−1.61	32.85	75	−1.60	32.84	26.44
105	−1.39	32.96	100	−1.45	32.94	26.52
156	−0.89	33.16	150	−0.95	33.14	26.67

Station 6269; June 18; latitude 48°07.5′ N., longitude 50°33′ W.; depth 199 m.; dynamic height 971.113.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	4.92	32.29	0	4.92	32.29	25.56
25	3.27	32.52	25	3.27	32.52	25.90
50	−0.63	32.87	50	−0.63	32.87	26.44
75	−1.21	33.01	75	−1.21	33.01	26.57
101	−1.40	33.02	100	−1.40	33.02	26.58
151	−0.79	33.30	150	−0.80	33.29	26.77

Station 6270; June 18; latitude 48°16′ N., longitude 51°53′ W.; depth 187 m.; dynamic height 971.113.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	4.25	32.47	0	4.25	32.47	25.77
25	1.62	32.64	25	1.62	32.64	26.13
50	−1.21	32.82	50	−1.21	32.82	26.42
75	−1.48	32.93	75	−1.48	32.93	26.51
100	−1.47	33.00	100	−1.47	33.00	26.57
150	−1.36	33.08	150	−1.36	33.08	26.63

Station 6271; June 18; latitude 48°24.5′ N., longitude 52°12′ W.; depth 196 m.; dynamic height 971.117.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	4.48	32.33	0	4.48	32.33	25.64
25	1.20	32.55	25	1.20	32.55	26.10
50	−0.96	32.80	50	−0.96	32.80	26.39
75	−1.49	32.90	75	−1.49	32.90	26.48
99	−1.45	32.96	100	−1.45	32.96	26.53
149	−1.39	33.06	150	−1.40	33.06	26.61
184	−1.20	33.13				

Station 6272; June 18; latitude 48°34.5′ N., longitude 52°36′ W.; depth 263 m.; dynamic height 971.104.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	4.46	32.31	0	4.46	32.31	25.63
23	2.53	32.50	25	2.25	32.53	26.00
47	−0.63	32.82	50	−0.80	32.84	26.42
70	−1.32	32.93	75	−1.30	32.95	26.52
94	−1.24	33.03	100	−1.25	33.05	26.60
140	−1.20	33.17	150	−1.10	33.24	26.75
187	−0.57	33.54	(200)	−0.35	33.64	27.04

Station 6273; June 18; latitude 48°38′ N., longitude 52°46′ W.; depth 224 m.; dynamic height 971.142.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	4.09	32.36	0	4.09	32.36	25.70
23	2.75	32.48	25	2.45	32.51	25.96
46	−1.16	32.78	50	−1.25	32.78	26.38
70	−1.42	32.80	75	−1.45	32.83	26.43
93	−1.50	32.98	100	−1.50	32.99	26.56
139	−1.43	33.04	150	−1.40	33.05	26.60

Station 6274; June 18; latitude 48°47′ N., longitude 52°47 W.; depth 135 m.; dynamic height 971.151.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	3.54	32.38	0	3.54	32.38	25.77
24	0.09	32.44	25	0.00	32.45	26.08
47	−1.12	32.66	50	−1.15	32.67	26.29
71	−1.19	32.76	75	−1.25	32.76	26.37
94	−1.30	32.76	100	−1.30	32.76	26.37

Station 6275; June 18; latitude 48°50′ N., longitude 52°39′ W.; depth 224 m.; dynamic height 971.152.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	4.21	32.33	0	4.21	32.33	25.67
23	−0.66	32.52	25	−0.80	32.54	26.18
46	−1.11	32.70	50	−1.15	32.71	26.32
70	−1.16	32.78	75	−1.20	32.79	26.39
92	−1.42	32.85	100	−1.45	32.85	26.44
139	−1.50	32.89	150	−1.50	32.93	26.51
185	−1.42	33.08	200	−1.40	33.14	26.68

Station 6276; June 18; latitude 48°55′ N., longitude 52°25′ W.; depth 341 m.; dynamic height 971.121.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	3.27	32.14	0	3.27	32.14	25.60
25	0.63	32.56	25	0.63	32.56	26.13
49	−1.18	32.72	50	−1.20	32.72	26.34
74	−1.47	32.80	75	−1.50	32.81	26.42
98	−1.56	32.96	100	−1.55	32.97	26.55
148	−1.38	33.14	150	−1.35	33.15	26.68
198	−0.77	33.48	200	−0.70	33.50	26.95
296	1.81	34.21	300	1.95	34.25	27.40

Station 6277; June 18; latitude 48°58′ N., longitude 52°12′ W.; depth 306 m.; dynamic height 971.151.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.58	32.10	0	3.58	32.10	25.54
24	0.13	32.56	25	0.05	32.58	26.18
49	−1.32	32.81	50	−1.35	32.82	26.42
73	−1.45	32.89	75	−1.50	32.89	26.47
98	−1.56	------	100	−1.55	32.94	26.52
146	−1.48	33.01	150	−1.45	33.02	26.58
195	−1.27	33.06	200	−1.20	33.09	26.63
			(300)	2.10	34.19	27.33

Station 6278; June 18; latitude 49°01.5′ N., longitude 52°00′ W.; depth 302 m.; dynamic height 971.114.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.60	32.17	0	3.60	32.17	25.60
24	−1.15	32.81	25	−1.15	32.81	26.41
47	−1.32	32.89	50	−1.35	32.89	26.47
71	−1.45	32.92	75	−1.50	32.93	26.51
94	−1.56	32.98	100	−1.55	32.99	26.56
140	−1.49	33.04	150	−1.45	33.07	26.62
187	−1.16	33.28	200	−0.85	33.40	26.87
281	1.58	34.20	(300)	2.20	34.39	27.49

Station 6279; June 19; latitude 49°07′ N., longitude 51°40′ W.; depth 287 m.; dynamic height 971.108.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.66	32.07	0	3.66	32.07	25.52
25	0.59	32.56	25	0.59	32.56	26.13
51	−1.41	32.84	50	−1.35	32.83	26.42
76	−1.60	32.93	75	−1.60	32.93	26.51
101	−1.60	33.00	100	−1.60	32.99	26.56
151	−1.19	33.24	150	−1.20	33.23	26.74
201	−0.39	33.60	200	−0.40	33.59	27.01
284	1.66	34.25				

Station 6280; June 19; latitude 49°13′ N., longitude 51°18′ W.; depth 327 m.; dynamic height 971.050.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.59	32.07	0	2.59	32.07	25.61
26	−0.37	32.54	25	−0.30	32.52	26.14
51	−1.26	33.02	50	−1.25	33.01	26.57
77	−1.07	33.15	75	−1.10	33.13	26.66
102	−0.78	33.36	100	−0.80	33.33	26.81
151	0.15	33.79	150	0.05	33.76	27.13
205	1.44	34.13	200	1.30	34.10	27.32
307	2.49	34.48	300	2.45	34.46	27.52

Station 6281; June 19; latitude 49°29′ N., longitude 50°35′ W.; depth 339 m.; dynamic height 970.961.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.84	33.22	0	2.84	33.22	26.50
27	2.53	33.18	25	2.55	33.18	26.50
53	0.60	33.49	50	0.80	33.44	26.82
80	0.89	33.96	75	0.80	33.89	27.18
106	1.22	34.09	100	1.20	34.07	27.31
160	2.02	34.30	150	1.90	34.27	27.42
213	2.54	34.48	200	2.45	34.44	27.50
319	3.25	34.73	300	3.15	34.70	27.65

Station 6282; June 19; latitude 49°38′ N., longitude 50°03′ W.; depth 637 m.; dynamic height 970.898.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.51	33.66	0	3.51	33.66	26.79
23	3.46	33.68	25	3.45	33.75	26.86
46	3.53	34.47	50	3.45	34.46	27.43
69	3.07	34.42	75	3.10	34.48	27.48
92	3.13	34.66	100	3.10	34.66	27.63
137	3.11	34.67	150	3.10	34.67	27.64
184	3.10	34.67	200	3.10	34.68	27.64
276	3.25	34.73	300	3.25	34.72	27.66
356	3.25	34.72	400	3.30	34.74	27.67
548	3.33	34.78	600	3.35	34.79	27.70

Station 6283; June 19; latitude 49°47.5′ N., longitude 49°30′ W.; depth 1,335 m.; dynamic height 970.901.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.21	33.68	0	3.21	33.68	26.83
24	2.17	33.98	25	2.20	33.99	27.17
48	3.86	34.18	50	3.75	34.20	27.20
72	2.21	34.40	75	2.25	34.41	27.50
95	2.44	34.49	100	2.50	34.50	27.55
144	2.86	34.58	150	2.90	34.59	27.59
192	3.06	34.62	200	3.10	34.63	27.60
287	3.52	34.75	300	3.55	34.77	27.67
357	*3.51	34.83	400	3.60	34.83	27.71
535	3.66	34.835	600	3.60	34.83	27.71
714	3.37	34.80	800	3.45	34.82	27.72
914	3.53	34.86	1,000	3.50	34.86	27.75
1,202	3.42	34.86				

Station 6284; June 19; latitude 50°00.5′ N., longitude 49°02′ W.; depth 1,829 m.; dynamic height 970.853.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.56	34.39	0	4.56	34.39	27.26
20	4.39	34.37	25	4.25	34.40	27.30
39	2.99	34.54	50	3.00	34.58	27.57
59	3.02	34.61	75	3.25	34.71	27.65
78	3.26	34.72	100	3.30	34.74	27.67
117	3.32	34.76	150	3.45	34.79	27.69
156	3.43	34.80	200	3.40	34.80	27.71
234	3.35	34.80	300	3.35	34.80	27.71
412	3.32	34.80	400	3.35	34.80	27.71
596	3.32	34.80	600	3.35	34.80	27.71
768	3.30	34.84	800	3.35	34.84	27.74
970	3.37	34.86	1,000	3.35	34.86	27.76
1,496	3.31	34.86				

Station 6285; July 10; latitude 50°02.5′ N., longitude 48°54′ W.; depth 1,866 m.; dynamic height 970.851.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.83	34.43	0	7.83	34.43	26.87
22	4.55	34.43	25	4.55	34.44	27.30
45	4.82	34.56	50	4.75	34.57	27.39
67	4.39	34.61	75	4.20	34.62	27.49
90	3.72	34.65	100	3.60	34.66	27.58
134	3.39	34.73	150	3.40	34.75	27.67
179	3.38	34.78	200	3.40	34.80	27.71
269	3.49	34.84	300	3.45	34.84	27.73
318	3.40	34.84	400	3.40	34.85	27.75
478	3.37	34.86	600	3.35	34.86	27.76
638	3.31	34.855	800	3.35	34.87	27.77
812	3.32	34.87	1,000	3.35	34.88	27.77
1,275	3.33	------				

Station 6286; July 11; latitude 49°49.5′ N., longitude 49°29′ W.; depth 1,390 m.; dynamic height 970.897.

Observed values			Sealed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.43	33.73	0	6.43	33.73	26.52
26	4.05	34.15	25	4.15	34.12	27.09
52	2.09	34.36	50	2.20	34.34	27.45
78	2.20	34.42	75	2.15	34.41	27.51
103	2.55	-------	100	2.50	34.48	27.53
156	2.88	34.66	150	2.85	34.64	27.63
207	3.09	34.71	200	3.05	34.70	27.66
310	3.38	34.775	300	3.35	34.77	27.69
415	3.42	34.79	400	3.45	34.79	27.69
621	3.42	34.79	600	3.45	34.79	27.69
827	3.41	34.86	800	3.45	34.85	27.74
1,040	3.40	34.875	1,000	3.40	34.87	27.77
1,350	3.37	34.88				

Station 6287; July 11; latitude 49°37.5′ N., longitude 50°02′ W.; depth 605 m.; dynamic height 970.900.

Observed values			Sealed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.03	33.02	0	5.03	33.02	26.13
23	3.50	33.93	25	3.35	33.98	27.06
46	2.26	34.42	50	2.25	34.44	27.52
69	2.49	34.49	75	2.50	34.50	27.55
92	2.65	34.53	100	2.75	34.54	27.56
137	3.07	34.59	150	3.10	34.60	27.58
183	3.18	34.63	200	3.20	34.65	27.61
275	3.18	34.72	300	3.20	34.73	27.67
297	3.19	34.73	400	3.30	34.77	27.70
495	3.34	34.79	(600)	3.35	34.81	27.72

Station 6288; July 11; latitude 49°28′ N., longitude 50°32′ W.; depth 351 m.; dynamic height 970.958.

Observed values			Sealed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.92	32.89	0	5.92	32.89	25.91
27	1.68	33.13	25	2.00	33.10	26.47
54	−0.22	33.48	50	−0.20	33.42	26.87
81	0.72	33.94	75	0.50	33.86	27.18
107	1.44	34.16	100	1.25	34.11	27.34
162	2.24	34.43	150	2.05	34.38	27.49
216	2.79	34.58	200	2.65	34.54	27.57
323	3.12	34.72	300	3.10	34.69	27.65

Station 6289; July 11; latitude 49°20′ N.; longitude 50°58′ W.; depth 333 m.; dynamic height 971.005.

Observed values			Sealed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.15	32.24	0	7.15	32.24	25.25
20	3.64	32.83	25	3.15	32.88	26.21
40	1.86	32.97	50	0.80	33.09	26.54
60	−0.11	33.29	75	−0.30	33.52	26.95
80	−0.32	33.61	100	0.40	33.86	27.19
120	1.13	34.05	150	1.70	34.20	27.37
160	1.83	34.25	200	2.30	34.39	27.48
240	2.67	34.50	(300)	3.00	34.63	27.61

Station 6290; July 11; latitude 49°10.5′ N., longitude 51°31′ W.; depth 322 m.; dynamic height 971.077.

Observed values			Sealed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.03	31.43	0	8.03	31.43	24.49
25	0.58	32.28	25	0.58	32.28	25.90
50	−1.11	32.79	50	−1.11	32.79	26.39
75	−1.10	33.03	75	−1.10	33.03	26.58
100	−0.67	33.34	100	−0.67	33.34	26.82
150	−0.28	33.73	150	−0.28	33.73	27.11
201	1.28	34.11	200	1.25	34.10	27.33
301	2.16	34.39	300	2.15	34.38	27.48

Station 6291; July 11; latitude 49°02′ N., longitude 51°53′ W.; depth 311 m.; dynamic height 971.134.

Observed values			Sealed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.97	31.33	0	8.97	31.33	24.28
25	3.62	32.31	25	3.62	32.31	25.71
50	−1.41	32.87	50	−1.41	32.87	26.46
75	−1.62	32.96	75	−1.62	32.96	26.54
99	−1.53	-------	100	−1.50	33.03	26.59
149	−1.28	33.18	150	−1.30	33.18	26.70
199	−0.33	33.57	200	−0.30	33.58	26.99
298	2.07	34.36	300	2.10	34.37	27.48

Station 6292; July 11; latitude 48°57.5′ N., longitude 52°06′ W.; depth 300 m.; dynamic height 971.138.

Observed values			Sealed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.98	31.51	0	7.98	31.51	24.57
24	3.17	32.19	25	3.00	32.21	25.69
49	−1.46	32.66	50	−1.50	32.68	26.31
73	−1.60	32.94	75	−1.60	32.95	26.53
98	−1.55	33.04	100	−1.55	33.05	26.61
147	−1.36	33.20	150	−1.35	33.21	26.74
196	−0.67	33.46	200	−0.55	33.49	26.93
284	1.79	34.22	(300)	2.20	34.36	27.47

Station 6293; July 11; latitude 48°50.5′ N., longitude 52°28′ W.; depth 375 m.; dynamic height 971.131.

Observed values			Sealed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.68	31.73	0	7.68	31.73	24.77
25	−0.51	32.45	25	−0.51	32.45	26.10
51	−1.42	32.86	50	−1.40	32.84	26.44
76	−1.60	32.92	75	−1.60	32.92	26.51
101	−1.54	33.00	100	−1.55	33.00	26.57
152	−1.40	33.16	150	−1.40	33.15	26.68
203	−0.98	33.43	200	−1.00	33.41	26.89
304	2.12	34.36	300	2.00	34.32	27.45

Station 6294; July 12; latitude 48°46.5′ N., longitude 52°43′ W.; depth 222 m.; dynamic height 971.144.

Observed values			Sealed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.26	31.88	0	8.26	31.88	24.82
25	1.79	32.40	25	1.79	32.40	25.93
50	−1.22	32.83	50	−1.22	32.83	26.42
75	−1.50	32.94	75	−1.50	32.94	26.52
100	−1.59	32.98	100	−1.59	32.98	26.55
150	−1.42	33.06	150	−1.42	33.06	26.61
200	−0.94	33.34	200	−0.94	33.34	26.83

STATIONS OCCUPIED IN 1956—Continued

Station 6295; July 12; latitude 48°45.5′ N., longitude 52°46′ W.; depth 155 m.; dynamic height 971.152.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.69	31.68	0	8.69	31.68	24.60
24	1.53	32.41	25	1.25	32.48	26.03
48	−1.37	32.84	50	−1.40	32.85	26.44
72	−1.51	32.91	75	−1.50	32.91	26.49
95	−1.51	32.92	100	−1.50	32.92	26.50
143	−1.39	32.94	150	−1.30	32.95	26.52

Station 6296; July 12; latitude 48°42.5′ N., longitude 52°58′ W.; depth 95 m.; dynamic height 971.178.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.80	31.52	0	9.80	31.52	24.30
22	3.46	32.15	25	2.85	32.22	25.70
44	−0.82	32.66	50	−0.90	32.66	26.28
66	−0.99	32.66	(75)	−1.00	32.66	26.28

Station 6297; July 12; latitude 48°36′ N., longitude 52°41′ W.; depth 272 m.; dynamic height 971.156.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.29	31.75	0	8.29	31.75	24.71
19	6.55	32.05	25	4.35	32.22	25.57
39	−0.04	32.62	50	−1.00	32.78	26.37
58	−1.48	32.83	75	−1.40	32.89	26.47
78	−1.41	32.90	100	−1.50	32.92	26.50
117	−1.57	32.94	150	−1.50	33.05	26.60
156	−1.46	33.08	200	−1.00	33.37	26.85
210	−0.88	33.44				

Station 6298; July 12; latitude 48°19′ N., longitude 52°05′ W.; depth 187 m.; dynamic height 971.144.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.58	31.91	0	7.58	31.91	24.93
25	2.01	32.41	25	2.01	32.41	25.93
50	−1.19	32.86	50	−1.19	32.86	26.45
75	−1.43	32.95	75	−1.43	32.95	26.52
100	−1.50	32.99	100	−1.50	32.99	26.56
150	−1.35	33.08	150	−1.35	33.08	26.63

Station 6299; July 12; latitude 48°11′ N., longitude 51°46′ W.; depth 187 m.; dynamic height 971.149.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.74	31.97	0	7.74	31.97	24.96
25	4.56	32.35	25	4.56	32.35	25.65
51	−1.10	32.88	50	−1.00	32.87	26.45
76	−1.36	32.94	75	−1.35	32.94	26.52
101	−1.48	33.01	100	−1.50	33.01	26.58
152	−1.33	33.11	150	−1.35	33.10	26.64

Station 6300; July 12; latitude 48°03′ N., longitude 51°25′ W.; depth 220 m.; dynamic height 971.130.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.92	32.18	0	6.92	32.18	25.23
25	4.13	32.50	25	4.13	32.50	25.81
50	−1.01	32.87	50	−1.01	32.87	26.45
75	−1.37	32.99	75	−1.37	32.99	26.56
100	−1.36	33.05	100	−1.36	33.05	26.60
149	−0.76	33.29	150	−0.75	33.29	26.77
199	−0.50	33.40	200	−0.50	33.40	26.86

Station 6301; July 12; latitude 47°51′ N., longitude 51°00′ W.; depth 157 m.; dynamic height 971.122.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.17	32.26	0	7.17	32.26	25.27
25	4.72	32.47	25	4.72	32.47	25.73
50	−0.55	32.85	50	−0.55	32.85	26.42
75	−1.14	32.98	75	−1.14	32.98	26.54
100	−1.17	33.10	100	−1.17	33.10	26.64
148	−0.62	33.29	150	−0.60	33.30	26.77

Station 6302; July 12; latitude 47°45.5′ N., longitude 50°48′ W.; depth 119 m.; dynamic height 971.131.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.17	32.43	0	7.17	32.43	25.40
24	4.74	32.45	25	4.45	32.45	25.74
49	−0.38	32.82	50	−0.50	32.82	26.39
73	−1.05	32.96	75	−1.05	32.97	26.53
97	−0.98	33.11	100	−0.95	33.13	26.66

Station 6303; July 12; latitude 47°38′ N., longitude 50°33 W.; depth 148 m.; dynamic height 971.131.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.84	32.35	0	6.84	32.35	25.38
24	6.16	32.41	25	5.65	32.44	25.60
48	−0.25	32.85	50	−0.40	32.86	26.42
72	−0.74	32.97	75	−0.75	33.00	26.55
96	−0.73	33.22	100	−0.70	33.22	26.72
139	−0.69	33.25				

Station 6304; July 12; latitude 47°31.5′ N., longitude 50°18′ W.; depth 183 m.; dynamic height 971.130.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.97	32.48	0	6.97	32.48	25.46
25	5.90	32.57	25	5.90	32.57	25.68
50	1.84	32.95	50	1.84	32.95	26.36
75	0.23	33.11	75	0.23	33.11	26.59
100	−0.24	33.20	100	−0.24	33.20	26.69

Station 6305; July 12; latitude 47°22′ N., longitude 50°00′ W.; depth 78 m.; dynamic height 971.124.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.57	32.60	0	7.57	32.60	25.48
24	5.98	32.72	25	5.80	32.74	25.81
48	1.01	33.03	50	0.85	33.04	26.51
72	0.09	33.09	75	0.05	33.10	26.59

Station 6306; July 12; latitude 47°40.5′ N., longitude 49°52′ W.; depth 121 m.; dynamic height 971.138.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.91	32.34	0	6.91	32.34	25.36
25	6.40	32.39	25	6.40	32.39	25.47
49	0.06	32.78	50	−0.05	32.80	26.36
74	−0.55	33.00	75	−0.55	33.01	26.55
98	−0.61	33.11	100	−0.60	33.12	26.63

STATIONS OCCUPIED IN 1956—Continued

Station 6307; July 13; latitude 47°59′ longitude 49°43′ W.; depth 190 m.; dynamic height 971.127.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	6.06	32.03	0	6.06	32.03	25.23
25	4.59	32.09	25	4.59	32.09	25.43
50	−1.44	32.87	50	−1.44	32.87	26.46
75	−1.47	33.01	75	−1.47	33.01	26.58
100	−0.58	33.26	100	−0.58	33.26	26.74
150	0.01	33.64	150	0.01	33.64	27.03

Station 6308; July 13; latitude 48°10′ N., longitude 49°38′ W.; depth 224 m.; dynamic height 971.127.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	6.61	31.87	0	6.61	31.87	25.04
25	3.16	32.25	25	3.16	32.25	25.70
49	−1.36	32.87	50	−1.40	32.88	26.47
74	−1.44	33.00	75	−1.45	33.00	26.57
99	−1.29	33.12	100	−1.30	33.13	26.66
148	−0.70	33.44	150	−0.65	33.46	26.92
197	0.94	33.96	200	1.05	33.99	27.25

Station 6309; July 13; latitude 48°31′ N., longitude 49°28′ W.; depth 677 m.; dynamic height 971.006.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	6.63	32.15	0	6.63	32.15	25.25
20	5.66	32.81	25	4.90	32.91	26.05
41	2.21	33.15	50	0.80	33.30	26.71
61	0.07	33.50	75	0.25	33.72	27.09
81	0.39	33.81	100	1.00	34.08	27.32
122	1.96	34.31	150	2.45	34.45	27.51
163	2.60	34.50	200	2.80	34.57	27.58
244	3.07	34.62	300	3.05	34.66	27.63
296	2.94	34.67	400	3.15	34.70	27.65
452	3.18	34.71	(600)	3.25	34.75	27.68

Station 6310; July 13; latitude 48°36.5′ N., longitude 49°26′ W.; depth 1,069 m.; dynamic height 970.948.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	6.05	32.95	0	6.05	32.95	25.94
25	4.19	33.17	25	4.19	33.17	26.33
49	2.50	33.87	50	2.45	33.90	27.07
73	1.51	34.17	75	1.50	34.18	27.37
97	1.89	34.27	100	1.95	34.28	27.42
147	2.57	34.51	150	2.60	34.52	27.56
196	2.94	34.61	200	2.95	34.61	27.60
293	3.16	34.69	300	3.10	34.68	27.64
375	*3.15	34.72	400	3.25	34.74	27.67
561	3.39	34.80	600	3.45	34.81	27.71
745	3.47	34.85	800	3.50	34.86	27.75
951	3.43	34.86	1,000	3.45	34.86	27.75

Station 6311; July 13; latitude 49°03.5′ N., longitude 49°16′ W.; depth 1,665 m.; dynamic height 970.868.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	7.06	33.59	0	7.06	33.59	26.32
25	7.03	34.25	25	7.03	34.25	26.85
50	4.39	34.55	50	4.39	34.55	27.41
76	3.84	34.63	75	3.85	34.63	27.52
101	3.56	34.67	100	3.55	34.67	27.59
151	3.35	34.76	150	3.35	34.76	27.68
202	3.45	34.78	200	3.45	34.78	27.68
303	3.47	34.84	300	3.50	34.84	27.73
405	3.47	34.86	400	3.45	34.86	27.75
604	3.36	34.86	600	3.40	34.86	27.76
801	3.38	34.87	800	3.40	34.87	27.77
1,002	3.36	34.88	1,000	3.35	34.88	27.77
1,508	3.33	34.92				

Station 6312; July 13; latitude 49°31′ N., longitude 49°08′ W.; depth 1,701 m.; dynamic height 970.863.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	7.72	33.73	0	7.72	33.73	26.34
25	5.25	34.39	25	5.25	34.39	27.18
49	4.60	34.54	50	4.55	34.54	27.38
74	3.70	34.60	75	3.70	34.60	27.52
99	3.58	34.71	100	3.55	34.71	27.62
148	3.50	34.77	150	3.50	34.77	27.68
197	3.43	34.78	200	3.45	34.78	27.68
296	3.43	34.82	300	3.45	34.82	27.72
369	3.48	34.85	400	3.45	34.85	27.74
556	3.41	34.86	600	3.40	34.86	27.76
743	3.34	34.85	800	3.35	34.87	27.77
936	3.36	34.87	1,000	3.35	34.87	27.77
1,430	3.32	34.89				

Station 6313; July 13; latitude 50°01′ N., longitude 49°01′ W.; depth 1,847 m.; dynamic height 970.874.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	8.65	34.38	0	8.65	34.38	26.71
25	7.73	34.43	25	7.73	34.43	26.89
50	4.62	34.55	50	4.62	34.55	27.38
75	3.89	34.60	75	3.89	34.60	27.50
101	3.47	34.65	100	3.45	34.65	27.58
151	3.37	34.75	150	3.35	34.75	27.67
201	3.42	34.80	200	3.40	34.80	27.71
302	3.46	34.82	300	3.45	34.82	27.72
399	3.46	34.84	400	3.45	34.84	27.73
593	3.40	34.84	600	3.40	34.84	27.74
782	3.32	34.85	800	3.35	34.85	27.75
983	3.36	34.89	1,000	3.35	34.89	27.78
1,493	3.32	34.91				

Station 6314; July 15; latitude 53°43′ N., longitude 55°48′ W.; depth 114 m.; dynamic height 1,454.941.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	9.20	27.59	0	9.20	27.59	21.34
25	−0.77	32.51	25	−0.77	32.51	26.15
50	−1.20	32.70	50	−1.20	32.70	26.32
74	−1.32	32.78	75	−1.30	32.78	26.38
99	−1.40	32.83	100	−1.40	32.83	26.43

STATIONS OCCUPIED IN 1956—Continued

Station 6315; July 15; latitude 53°51.5′ N., longitude 55°34′ W.; depth 211 m.; dynamic height 1,454.864.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.97	31.84	0	5.97	31.84	25.09
25	−0.22	32.42	25	−0.22	32.42	26.06
50	−1.27	32.85	50	−1.27	32.85	26.44
75	−1.50	33.01	75	−1.50	33.01	26.58
100	−1.34	33.17	100	−1.34	33.17	26.70
150	−1.00	33.47	150	−1.00	33.47	26.94
190	−0.38	33.71	(200)	−0.20	33.77	27.15

Station 6316; July 15; latitude 53°56.5′ N., longitude 55°24′ W.; depth 169 m.; dynamic height 1,554.810.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.62	32.31	0	6.62	32.31	25.38
25	1.13	32.74	25	1.13	32.74	26.25
50	−0.83	33.18	50	−0.83	33.18	26.69
75	−1.04	33.42	75	−1.04	33.42	26.90
99	−0.90	33.53	100	−0.90	33.53	26.98
149	0.74	34.01	150	0.80	34.02	27.29

Station 6317; July 15; latitude 54°08.5′ N., longitude 55°05′ W.; depth 172 m.; dynamic height 1,454.817.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.82	32.07	0	4.82	32.07	25.40
24	−0.90	32.88	25	−0.95	32.89	26.46
49	−1.39	33.06	50	−1.40	33.07	26.62
73	−1.40	33.20	75	−1.40	33.21	26.74
97	−1.17	33.39	100	−1.10	33.41	26.89
145	0.07	33.85	(150)	0.20	33.89	27.22

Station 6318; July 15; latitude 54°19′ N., longitude 54°44′ W.; depth 192 m.; dynamic height 1,454.830.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.51	31.99	0	5.51	31.99	25.26
26	−0.98	32.79	25	−0.70	32.78	26.37
51	−1.45	33.07	50	−1.45	33.06	26.61
77	−1.36	33.25	75	−1.35	33.23	26.75
102	−1.31	33.36	100	−1.30	33.35	26.84
154	−0.52	33.68	150	−0.60	33.65	27.06

Station 6319; July 15; latitude 54°30.5′ N., longitude 54°28′ W.; depth 227 m.; dynamic height 1,454.815.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.13	32.37	0	4.13	32.37	25.71
25	−1.22	32.87	25	−1.22	32.87	26.46
49	−1.45	33.14	50	−1.45	33.15	26.68
74	−1.31	33.31	75	−1.30	33.31	25.81
98	−1.27	33.43	100	−1.25	33.44	26.92
147	−0.69	33.67	150	−0.65	33.68	27.09
196	0.38	33.96	200	0.45	33.98	27.27

Station 6320; July 15; latitude 54°46′ N., longitude 53°53′ W.; depth 338 m.; dynamic height 1,454.816.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.45	32.09	0	3.45	32.09	25.55
20	−0.30	32.89	25	−0.45	32.95	26.50
40	−0.78	33.07	50	−1.15	33.09	26.63
61	−1.29	33.12	75	−1.25	33.18	26.70
80	−1.23	33.21	100	−0.95	33.32	26.81
121	−0.59	33.44	150	−0.25	33.69	27.08
162	−0.11	33.81	200	0.85	34.14	27.38
242	2.22	34.43	(300)	3.25	34.65	27.60

Station 6321; July 15; latitude 54°52′ N., longitude 53°41′ W.; depth 732 m.; dynamic height 1,454.740.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.38	32.51	0	3.38	32.51	25.89
22	0.69	33.29	25	0.45	33.31	26.74
44	−0.18	33.47	50	−0.15	33.52	26.95
66	0.07	33.70	75	0.45	33.84	27.16
87	0.89	34.06	100	1.05	34.10	27.34
131	1.47	34.20	150	1.75	34.26	27.42
175	2.08	34.33	200	2.45	34.41	27.48
262	3.72	34.68	300	3.65	34.72	27.62
326	3.55	34.74	400	3.70	34.79	27.67
492	3.68	34.83	(600)	3.65	34.85	27.72

Station 6322; July 15; latitude 54°59′ W., longitude 53°22′ W.; depth 1,664 m.; dynamic height 1,454.650.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.64	33.27	0	3.64	33.27	26.46
23	3.13	34.06	25	3.05	34.09	27.17
45	2.56	34.32	50	2.50	34.33	27.41
68	2.33	34.35	75	2.40	34.40	27.48
90	2.75	34.49	100	2.85	34.53	27.54
136	3.01	34.64	150	3.10	34.67	27.64
181	3.42	34.73	200	3.45	34.75	27.66
271	3.56	34.80	300	3.60	34.81	27.70
386	3.65	34.82	400	3.65	34.82	27.70
576	3.75	34.88	600	3.75	34.88	27.73
765	3.47	34.87	800	3.45	34.87	27.76
962	3.36	34.87	1,000	3.30	34.87	27.78
1,462	3.35	34.90	(1,500)	3.35	34.90	27.79

Station 6323; July 15; latitude 55°03.5′ N., longitude 53°14′ W.; depth 2,122 m.; dynamic height 1,454.608.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.78	34.47	0	5.78	34.47	27.18
24	3.29	34.59	25	3.30	34.59	27.55
47	3.16	34.65	50	3.15	34.65	27.61
71	3.24	34.69	75	3.25	34.70	27.64
94	3.31	34.72	100	3.30	34.73	27.66
141	3.64	34.79	150	3.65	34.79	27.67
188	3.74	34.81	200	3.75	34.81	27.68
282	3.71	34.84	300	3.70	34.85	27.72
352	------	34.87	400	3.75	34.88	27.73
528	3.78	34.885	600	3.70	34.88	27.74
705	3.60	34.88	800	3.50	34.88	27.76
882	3.43	34.88	1,000	3.40	34.88	27.77
1,373	3.31	34.88	1,500	3.30	34.89	27.79
1,895	3.19	34.93	(2,000)	3.20	34.93	27.83

STATIONS OCCUPIED IN 1956—Continued

Station 6324; July 16; latitude 55°14′ N., longitude 52°59 W.; depth 3,005 m.; dynamic height 1,454.622.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.01	34.30	0	5.01	34.30	27.14
21	4.96	34.31	25	4.80	34.36	27.21
42	2.83	34.58	50	2.90	34.61	27.61
64	3.14	34.67	75	3.30	34.70	27.64
84	3.41	34.73	100	3.50	34.75	27.66
127	3.64	34.77	150	3.70	34.80	27.68
170	3.73	34.83	200	3.75	34.83	27.69
254	3.69	34.83	300	3.55	34.84	27.72
301	3.54	34.84	400	3.50	34.85	27.74
475	3.49	34.855	600	3.45	34.87	27.76
665	3.44	34.87	800	3.35	34.86	27.76
871	3.30	34.86	1,000	3.35	34.86	27.76
1,262	3.35	34.88	1,500	3.35	34.89	27.78
1,624	3.33	34.895	2,000	3.20	34.91	27.82
2,216	3.09	34.92	2,500	2.80	34.92	27.86
2,554	2.71	34.915	(3,000)	1.95	34.90	27.92

Station 6325; July 16; latitude 55°31.5′ N., longitude 52°29′ W.; depth 3,250 m.; dynamic height 1,454.630.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.15	34.49	0	6.15	34.49	27.15
26	6.07	34.52	25	6.05	34.51	27.18
50	3.43	34.64	50	3.45	34.64	27.57
76	3.14	34.67	75	3.15	34.67	27.63
100	3.24	34.70	100	3.25	34.70	27.64
151	3.44	34.75	150	3.45	34.75	27.66
202	3.39	34.75	200	3.40	34.75	27.67
302	3.37	34.81	300	3.40	34.81	27.72
374	3.55	34.85	400	3.55	34.85	27.73
576	3.47	34.85	600	3.45	34.85	27.74
789	3.49	34.86	800	3.50	34.86	27.75
1,013	3.45	34.88	1,000	3.45	34.88	27.76
1,550	3.30	34.89	1,500	3.30	34.89	27.79
2,105	3.32	34.92	2,000	3.30	34.92	27.82
2,398	3.12	34.92	2,500	3.00	34.92	27.85
2,850	2.58	34.925	(3,000)	2.35	34.92	27.90

Station 6326; July 16; latitude 55°55.5′ N., longitude 51°43′ W.; depth 3,438 m.; dynamic height 1,454.656.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.83	34.58	0	6.83	34.58	27.13
27	6.70	34.59	25	6.70	34.59	27.15
52	4.91	34.62	50	5.05	34.62	27.39
79	4.55	34.67	75	4.60	34.66	27.47
105	4.37	34.64	100	4.40	34.64	27.48
158	3.87	34.69	150	3.95	34.68	27.55
210	3.47	34.72	200	3.55	34.71	27.62
315	3.33	34.77	300	3.35	34.76	27.68
410	3.49	34.82	400	3.50	34.81	27.71
613	3.49	34.84	600	3.50	34.84	27.73
818	3.32	34.86	800	3.30	34.86	27.77
1,021	3.28	34.86	1,000	3.30	34.86	27.77
1,537	3.34	34.90	1,500	3.35	34.90	27.79
2,056	3.40	34.91	2,000	3.40	34.91	27.80
2,497	3.12	34.91	2,500	3.10	34.91	27.83
2,978	2.68	34.92	3,000	2.65	34.92	27.88
3,332	1.85	34.90				

Station 6327; July 17; latitude 56°28′ N., longitude 50°35′ W.; depth 3,712 m.; dynamic height 1,451.641.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.15	34.56	0	7.15	34.56	27.07
25	5.15	34.61	25	5.15	34.61	27.37
50	3.95	34.66	50	3.95	34.66	27.54
75	3.72	-------	75	3.72	34.68	27.58
100	3.55	34.69	100	3.55	34.69	27.60
148	3.38	34.66	150	3.40	34.66	27.60
198	3.39	34.76	200	3.40	34.76	27.68
298	3.33	34.78	300	3.35	34.78	27.69
414	*3.36	34.82	400	3.35	34.81	27.72
620	3.41	34.84	600	3.40	34.84	27.74
825	3.37	34.855	800	3.40	34.85	27.75
1,030	3.35	34.86	1,000	3.35	34.86	27.76
1,550	3.31	34.87	1,500	3.35	34.87	27.77
2,069	3.39	34.91	2,000	3.40	34.91	27.80
2,502	3.19	34.91	2,500	3.20	34.91	27.82
2,988	2.81	34.93	3,000	2.80	34.93	27.86
3,468	1.92	34.89	(3,500)	1.80	34.89	27.92

Station 6328; July 17; latitude 57°01.5′ N., longitude 49°27′ W.; depth 3,598 m.; dynamic height 1,454.617.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.14	34.54	0	7.14	34.54	27.06
26	4.75	34.62	25	4.80	34.62	27.42
52	4.30	34.63	50	4.35	34.63	27.47
78	3.65	34.67	75	3.70	34.66	27.57
104	3.48	34.70	100	3.50	34.69	27.61
155	3.36	34.72	150	3.35	34.74	27.66
208	3.45	34.78	200	3.45	34.77	27.68
312	3.38	34.81	300	3.40	34.81	27.72
416	3.41	34.845	400	4.40	34.84	27.74
623	3.30	34.85	600	3.30	34.85	27.76
830	3.41	34.87	800	3.40	34.87	27.77
1,035	3.38	34.88	1,000	3.40	34.88	27.77
1,556	3.33	-------	1,500	3.30	34.89	27.78
2,077	3.40	34.90	2,000	3.40	34.90	27.79
2,449	3.23	34.93	2,500	3.20	34.93	27.83
2,937	2.87	34.935	3,000	2.80	34.93	27.86
3,424	2.02	34.88	(3,500)	1.80	34.86	27.90

Station 6329; July 17; latitude 57°34.5′ N., longitude 48°26′ W.; depth 3,383 m.; dynamic height 1,454.607.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.78	34.55	0	6.78	34.55	27.11
26	5.25	34.65	25	5.30	34.64	27.37
52	4.39	34.71	50	4.45	34.71	27.53
78	3.79	34.735	75	3.85	34.73	27.60
104	3.60	34.725	100	3.60	34.73	27.63
155	3.58	34.76	150	3.60	34.76	27.66
207	3.61	34.785	200	3.60	34.78	27.67
311	3.44	34.83	300	3.45	34.83	27.72
388	3.39	34.84	400	3.40	34.84	27.74
583	3.52	34.88	600	3.50	34.88	27.76
780	3.39	-------	800	3.40	34.88	27.77
977	3.35	-------	1,000	3.35	34.88	27.77
1,485	3.28	34.88	1,500	3.30	34.88	27.78
2,003	3.38	34.905	2,000	3.40	34.91	27.80
2,549	3.06	34.91	2,500	3.10	34.91	27.83
3,047	2.56	34.90	3,000	2.60	34.90	27.86
3,347	1.73	34.87				

STATIONS OCCUPIED IN 1956—Continued

Station 6330; July 18; latitude 58°09′ N., longitude 47°16′ W.; depth 3,127 m.; dynamic height 1,454.627.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.21	34.67	0	6.21	34.67	27.29
25	6.20	34.67	25	6.20	34.67	27.29
50	4.72	34.71	50	4.72	34.71	27.50
75	4.58	34.71	75	4.58	34.71	27.51
101	4.29	34.74	100	4.30	34.74	27.57
151	3.92	34.80	150	3.90	34.80	27.66
201	3.81	34.82	200	3.80	34.82	27.69
302	3.84	34.845	300	3.85	34.85	27.70
402	3.51	34.84	400	3.50	34.84	27.73
604	3.38	34.85	600	3.40	34.85	27.75
806	3.41	34.87	800	3.40	34.87	27.77
1,008	3.34	34.87	1,000	3.35	34.87	27.77
1,516	3.30	34.875	1,500	3.30	34.88	27.78
2,027	3.30	34.92	2,000	3.30	34.92	27.82
2,459	2.86	34.92	2,500	2.80	34.92	27.86
2,941	2.05	34.885	(3,000)	1.95	34.88	27.90

Station 6331; July 18; latitude 58°41.5′ N., longitude 46°08′ W.; depth 2,563 m.; dynamic height 1,454.613.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.37	34.60	0	6.37	34.60	27.21
23	6.35	34.60	25	6.30	34.60	27.22
45	5.00	34.74	50	5.05	34.78	27.51
68	5.45	34.91	75	5.30	34.91	27.59
90	5.09	34.91	100	5.05	34.92	27.63
135	4.98	34.94	150	4.90	34.94	27.66
180	4.74	34.93	200	4.65	34.93	27.68
270	4.41	34.92	300	4.35	34.92	27.71
349	4.22	34.91	400	4.15	34.91	27.72
524	3.96	34.91	600	3.80	34.91	27.76
699	3.67	34.91	800	3.60	34.91	27.78
874	3.55	34.91	1,000	3.50	34.91	27.79
1,351	3.36	34.91	1,500	3.30	34.92	27.82
1,856	3.16	34.93	2,000	3.05	34.93	27.84
2,296	2.57	34.93	2,500	1.95	34.90	27.92
2,539	1.81	34.89				

Station 6332; July 19; latitude 59°04′ N., longitude 45°17′ W.; depth 2,195 m.; dynamic height 1,454.659.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.37	34.53	0	6.37	34.53	27.15
26	6.38	34.52	25	6.38	34.52	27.14
52	6.25	34.77	50	6.25	34.74	27.33
78	6.01	34.97	75	6.05	34.96	27.54
104	5.85	34.985	100	5.85	34.98	27.57
155	5.74	35.00	150	5.75	35.00	27.60
207	5.29	34.95	200	5.35	34.95	27.61
311	4.82	34.95	300	4.90	34.95	27.67
345	4.61	34.93	400	4.40	34.91	27.69
526	4.06	34.895	600	3.90	34.89	27.73
714	3.64	34.895	800	3.55	34.89	27.76
907	3.44	-------	1,000	3.40	34.89	27.78
1,390	3.29	34.88	1,500	3.25	34.89	27.79
1,892	3.04	34.935	2,000	2.85	34.92	27.86
1,924	2.98	34.93				
2,049	2.73	34.91				

Station 6333; July 19; latitude 59°13′ N., longitude 44°54′ W.; depth 2,012 m.; dynamic height 1,454.653.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.68	34.77	0	6.68	34.77	27.30
25	6.65	34.80	25	6.65	34.80	27.33
50	6.51	34.81	50	6.51	34.81	27.36
74	5.96	34.97	75	5.95	34.97	27.56
99	5.90	34.995	100	5.90	34.99	27.58
149	5.79	34.995	150	5.80	34.99	27.59
198	5.49	34.93	200	5.45	34.94	27.59
297	4.98	34.94	300	5.00	34.94	27.65
398	4.66	34.935	400	4.65	34.93	27.68
597	4.21	34.935	600	4.20	34.93	27.73
795	3.84	34.92	800	3.85	34.92	27.76
994	3.58	34.91	1,000	3.60	34.91	27.78
1,500	3.23	34.91	1,500	3.25	34.91	27.81
2,012	2.58	34.91	2,000	2.60	34.91	27.87

Station 6334; July 19; latitude 59°21′ N., longtiude 44°29′ W.; depth 1,097 m.; dynamic height 1,454.780.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.50	32.89	0	1.50	32.89	26.33
23	1.32	33.63	25	1.30	33.65	26.96
47	2.27	33.89	50	2.40	33.92	27.10
70	3.50	34.12	75	3.25	34.09	27.15
93	2.47	34.00	100	2.65	34.08	27.20
140	4.20	34.50	150	4.55	34.58	27.41
187	5.50	34.87	200	5.50	34.87	27.54
280	5.25	34.89	300	5.25	34.89	27.58
298	5.27	34.90	400	5.00	34.89	27.61
457	4.88	34.88	600	4.75	34.89	27.63
621	4.72	34.89	800	4.35	34.90	27.69
808	4.33	34.90	(1,000)	3.85	34.91	27.75

Station 6335; July 20; latitude 59°36′ N., longitude 44°14′ W.; depth 205 m.; dynamic height 1,454.936.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.46	31.39	0	0.46	31.39	25.20
25	0.34	31.61	25	0.34	31.61	25.38
50	0.22	31.91	50	0.22	31.91	25.63
75	0.00	32.53	75	0.00	32.53	26.14
100	0.25	33.09	100	0.25	33.09	26.57
149	2.70	34.21	150	2.70	34.21	27.30
178	3.07	34.37	(200)	3.30	34.48	27.46

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U. S. TREASURY DEPARTMENT - - - COAST GUARD

BULLETIN No. 43

INTERNATIONAL ICE OBSERVATION AND ICE PATROL SERVICE IN THE NORTH ATLANTIC OCEAN - [SEASON of 1957]

U. S. TREASURY DEPARTMENT
COAST GUARD

Bulletin No. 43

INTERNATIONAL ICE OBSERVATION AND ICE PATROL SERVICE

IN THE

NORTH ATLANTIC OCEAN

R. P. DINSMORE
R. M. MORSE
FLOYD M. SOULE

CG-188-12

Season of 1957

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A. C. Richmond,
Vice Admiral, U. S. Coast Guard,
Commandant.

Dist (SDL No. 66)
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B: e (5); b c (2); d g l m (1)
C: a b (1)
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E: d (35)
List 133

ABSTRACT

The authority for, mission, forces assigned and method of operation of the International Ice Patrol during the 1957 ice season are described.

Aerial ice observation, surface ice patrol and communications statistics are presented.

All ice reports made to the International Ice Patrol in 1957 are tabulated. A general month-by-month description of ice conditions in the Grand Banks of Newfoundland area is given. A summary of ice conditions in the Gulf of St. Lawrence and Strait of Belle Isle is included.

The most outstanding features of the 1957 ice season were the severity of the ice conditions and the employment of ships as a surface patrol for the first time since 1950. The widespread and prolonged ice season, evaluated as approximately 2.4 times heavier than average, make this year appear notable in the annals of the International Ice Patrol. A total of 931 known icebergs drifted south of the 48th parallel and 31 of these reached below 43° N.

The two dynamic topographic charts resulting from the season's current surveys and the dynamic topography found at the Bonavista triangle during the post season cruise are discussed with respect to surface circulation.

Temperature-salinity relationships of the Labrador Current water, Atlantic Current water and mixed water, found in the Grand Banks region during 1957, are compared with mean T–S curves for the period 1948–57. The continuation of the trend of the last few years to increasing salinity in the upper 200 meters in the Labrador Current and freshening of the water below that level is noted.

Year to year changes in density of the Labrador Current water are noted for the periods 1934–41 and 1948–57.

The apparent relation between the position of the cold wall in the Grand Banks sector and sea level differences at Bermuda and Charleston are further investigated in the light of more recent data, and it is concluded that the correlation found in prewar years was fortuitous.

A more detailed analysis of the circulation in the upper 1,000 meters is made on the basis of volume and heat transports and mean and minimum observed temperatures at 12 selected sections across the Labrador Current occupied during the 1957 season and post season surveys.

The exceptionally vigorous circulation on both the Labrador and Greenland sides of the Labrador Sea in 1957 is noted.

The temperature and salinity of the intermediate and deep waters of the Labrador Sea in 1957 are examined and compared with averages for

the groups of occupations during 1934–41 and 1948–57. The 1957 observations show the intermediate water to have a salinity below any of the prior occupations and a temperature near the previous cold limit, and the deep water to be near average at 2,000, 2,500 and 3,000 meters, and near the cold and low salinity limits at 3,500 meters.

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FOREWORD

This bulletin is No. 43 in the series of annual reports on the International Ice Observation and Ice Patrol Service.

Authors of the section of this bulletin dealing with oceanography were Oceanographer Floyd M. Soule and Lt. R. M. Morse. The remainder was written by Lt. Comdr. R. P. Dinsmore, USCG.

INTERNATIONAL ICE PATROL 1957

The services of the International Ice Patrol for 1957 were carried out by the United States Coast Guard in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1948, and title 46, U. S. Code, sections 738–738(D). The mission of the International Ice Patrol as included in the latter authority states:

> * * * *an ice patrol shall be maintained during the whole of the ice season in guarding the southeastern, southern and southwestern limits of the region of icebergs in the vicinity of the Grand Banks of Newfoundland, and the patrol shall inform trans-Atlantic and other passing vessels by radio and such other means as are available of the ice conditions and the extent of the dangerous region. A service for the study of ice and current conditions* * * * *shall be maintained during the ice season and any or all such services may be maintained during the remainder of the year as may be advisable.*

Commander, International Ice Patrol, Capt. Kenneth S. Davis, United States Coast Guard, was assigned the following forces for carrying out the Ice Patrol services to shipping during the 1957 season: three long-range PB1G type (B–17) aircraft, the United States Coast Guard Cutter *Acushnet* and the United States Coast Guard Cutter *Evergreen*. These forces were based at the United States Naval Station, Argentia, Newfoundland. Radio and landline facilities at Argentia were utilized by Commander, International Ice Patrol for communications with shipping and interested shore activities. The International Ice Patrol office at Argentia was organized and opened on 15 February.

Preseason aerial ice reconnaissance as recommended by Commander, International Ice Patrol was commenced by the United States Coast Guard Air Detachment at Argentia on 9 January to detect the first encroachment of ice into the Grand Banks area. By 28 January the field ice progressing southward on the northeast shoulder of the Grand Banks was a definite threat to the North Atlantic Track "E" which was then in effect. On that day United States Coast Guard Radio Argentia began twice-daily broadcasts to shipping of ice warnings. Upon the recommendation of Commander, International Ice Patrol, the North Atlantic Track Agreement authorities placed Canadian Seasonal Track "D" in effect on 4 February, 11 days ahead of schedule, because of the field ice in Track "E."

On the 9th and again on the 19th of February it was necessary to advise southward diversions of shipping using Tracks "C" and "D" to avoid the encroachment of field ice and bergs onto these lanes. And on 5 March, on the recommendation of Commander, International Ice Patrol, the United States-European Track "B" was placed in effect 11 days ahead of schedule. Shipping using Canadian Track "D" was advised to use the Track "B" turning points, and on this date the *USCGC Acushnet* was ordered from its home base in Portland, Maine, to inaugurate the surface patrol. On 13 March the *Acushnet* took station by the southernmost known ice, a medium-sized pinnacle berg which by the 17th had drifted to a point midway between the eastbound and westbound lanes of Track "B."

Field ice conditions over the Grand Banks during the 1957 season were particularly severe and widespread. These conditions are shown graphically in figures 12 to 18 and are described in the monthly ice conditions. Field ice climaxed its greatest southward extent in the early to middle part of March when it reached to latitude 42°25′ N. blocking the entire Track "D" and within 50 miles of Track "B" westbound. Canadian Track "E" remained hampered by field ice until the end of May but Tracks "F" and "G" (Strait of Belle Isle) and the Newfoundland coast were not clear until well into June and July. St. John's Harbor was closed by ice fields for long periods and to such an extent that even a powerful United States Navy icebreaker was unable to force entry for a period of several days. Many fishing and coastwise vessels suffered damage in the pack ice attempting to enter ports. Residents along the Newfoundland coast termed conditions the worst in many years, some going back to 1904. The northeast coast was close-packed with ice long after the usual opening dates. The first vessels reached Botwood, Newfoundland, on 6 June, that port having been blocked for approximately 5 months.

The initial berg threat to the effective steamer tracks on the Grand Banks subsided early in April, but in mid-May aerial ice reconnaissance revealed numerous bergs in the Labrador Current between latitudes 44° N. and 46° N. drifting rapidly southward toward the "Tail-of-the-Banks." This corresponded to a breakup in the field ice farther north. These bergs were destined to drift into Track "B" or the areas immediately adjacent and thereby necessitated an almost continuous surface patrol from 18 May to 13 August. They were also to cause a 24-day deferment of the scheduled northward shift from Track "B" to Track "C."

The necessity for a rigorous surface patrol required that the oceanographic vessel *USCGC Evergreen*, after two current surveys, be diverted to patrol duty on 23 May.

Rapid regression of bergs during the middle of July left the Grand Banks area almost ice free. Aerial observation on 20–23 July showed only one berg likely to come south of 46° N. Accordingly, Commander, International Ice Patrol recommended the now postponed shift from Track "B" to Track "C." The North Atlantic Track Agreement Authorities concurred and Track "C" became effective on 24 July.

The ice hazard on 24 July had reduced to one berg, but due to its large size and rapid drift southward in the still well-developed Labrador

Current, the patrol vessel *Acushnet* was required to stand by this berg through its remaining life span to 10 August while it drifted into the westbound Track "C."

With the melting of the aforementioned berg, the ice menace to transatlantic shipping ceased to exist and the services of the International Ice Patrol were terminated for the season on 13 August. However, at the request of Commander, International Ice Patrol, the Coast Guard Air Detachment, Argentia, Newfoundland, made several post season flights to preclude the undetected movement of stray bergs into the shipping lanes.

SURFACE ICE PATROL

For the first time since 1950, ice conditions were critical enough as to warrant the use of vessels for a surface patrol. Surface ice patrols are not to be confused with oceanographic surveys which are for the purpose of collecting scientific data and preparing a current map. The mission of the surface patrol is to provide an on-the-scene guard over the southernmost or more hazardous ice when major transatlantic lanes are, or are about to be, menaced.

During the season nine patrol cruises were made. Vessels employed were the Coast Guard Cutters *Acushnet* and *Evergreen*, the latter required to be diverted from its oceanographic duties in midseason.

The patrols were not necessarily continuous but were ordered by the Commander, International Ice Patrol as dictated by the current ice situation. Vessel operations were limited to patrolling the ice-infested areas in or near the steamer tracks. Since virtually all ice observation functions were accomplished by aircraft, it was possible to confine surface patrols exclusively to known or suspected ice-inhabited regions. This combined air-surface procedure obviates the necessity for long and costly surface searches that were characteristic of the years prior to World War II.

The decision to employ surface patrol vessels must weigh the need against the expense involved. While aerial search is a primary means of obtaining ice information, icebergs which encroach upon the steamer lanes may drift for days in conditions of poor visibility when their positions cannot be ascertained by aircraft. It is during such conditions that a patrol vessel with its apparent advantages becomes necessary. This season North Atlantic Track "C" was placed in effect on 24 July in the face of one large berg which endangered this track from 27 July to 10 August. The northward shift could not have been recommended if the patrol vessel *Acushnet* were not available to stand by the berg during this time. It should also be pointed out, however, that the recommendation to shift tracks could not have been made if aerial observation had not shown there was no further ice menace in the area nor was any likely to occur again.

Statistics for the 1957 surface vessel patrol are given in table 1. The data presented for the *CGC Evergreen* are for the employment of this vessel for patrol duty only and not for oceanographic duties. The results of the current surveys and scientific program are given in a later section of this report.

Table 1.—Surface Ice Patrol Statistics for the 1957 Ice Season

Patrol dates (actually on station)	Vessel on patrol	Total days at sea	Total miles cruised	Number of days standing by ice	Number of days searching area	Number of ice warnings and safety messages broadcast
9 March to 17 March	*Acushnet*	14	1,690	6	3	26
30 March to 1 April	do	5	1,059	2	1	5
1 April to 3 April	*Evergreen*	8	980	5	0	8
19 May to 26 May	*Acushnet*	13	1,539	5	3	55
26 May to 8 June	*Evergreen*	16	1,682	14	0	74
8 June to 22 June	*Acushnet*	18	1,455	14	1	108
22 June to 6 July	*Evergreen*	17	1,725	10	5	71
6 July to 19 July	*Acushnet*	17	1,341	12	2	252
25 July to 10 August	do	17	1,303	16	1	134
Total for 1957		125	11,092	81	17	733

AERIAL ICE OBSERVATION

During the 1957 ice season, 105 ice observation flights were made. The average length and duration of these flights was 1,048 miles and 7.2 hours, respectively. The maximum flight length was 1,325 miles. Prior to the ice season, 17 flights were made to detect the first encroachment of ice into the Grand Banks area and to enable Commander, International Ice Patrol to decide when to commence broadcast of ice warnings to shipping. Six postseason flights were made to guard against any stray berg entering the shipping lanes undetected.

The United States Coast Guard Air Detachment at Argentia had available three PB1G (B–17) type aircraft for ice reconnaissance. These aircraft were all equipped with radar to enable location of ice during periods of low visibility. However, visual identification of radar targets was necessary to distinguish between berg and nonberg radar targets which meant that the plane was obliged to divert from its intended track to identify radar targets beyond the range of visibility.

The search pattern normally consisted of a system of parallel lines spaced at 20- to 30-mile intervals, depending on visibility conditions.

Flights were usually scheduled only on days and in areas where good visibility conditions were forecast.

Flight statistics for the season are presented in the following table:

Table 2.—Aerial Ice Observation Statistics for the 1957 Ice Season

Month	Number of flights	Number of days on which flights made	Number days good observing weather[1]	Average visual effectiveness[2]	Maximum number days between flights	Miles flown	Hours flown
				Percent			
February (15–28)	9	8	6	65	2	9,793	68.7
March	25	19	21	67	3	26,874	181.5
April	18	16	12	64	5	17,667	118.9
May	17	17	14	72	4	15,936	107.4
June	18	18	11	59	4	19,125	126.1
July	16	13	16	54	4	15,709	108.1
August (1–13)	2	2	5	43	7	1,785	12.6
Total	105	93	85	63		106,889	723.3

[1]Days on which possible to search visually at least 50 percent of scouting area with 25-mile spacing between legs of flight plan.

[2]Ratio (×100) of area actually searched visually to area of search pattern.

COMMUNICATIONS

Because of the early advent of the ice season, United States Coasi Guard Radio Argentia (NIK) and United States Coast Guard Radto Boston (NMF) began broadcasting of ice warnings to shipping on 28 January, well in advance of the arrival at Argentia of Commander, International Ice Patrol and his staff. These ice warnings were broadcast during all single operator periods on 444 kcs. after preliminary call on 500 kcs. They were sent at 15 words per minute immediately following the silent periods of each single operator period. The texts of these broadcasts were prepared by Commander, International Ice Patrol at Woods Hole, Mass., and forwarded to the radio stations via landlines.

Beginning 20 February and continuing through 13 August ice bulletins were broadcast daily to shipping by NIK at 0048 and 1248 GMT on 155, 5320 and 8502 kcs. A general call to ships on 500 kcs. preceded each broadcast with instructions to shift to the above operating frequencies. A 1-minute period of test signals transmitted on the operating frequencies facilitated receiver tuning. Each bulletin was transmitted twice, once at 15 words per minute and second time at 25 words per minute. The ice bulletins were also sent via the teletype net to the United States Navy Hydrographic Office, Washington, D. C., the Canadian Department of Transport, Halifax, Nova Scotia, and the Royal Canadian Navy Radio Station at Albro Lake, Nova Scotia.

Each bulletin concluded with a request that all shipping in the ice patrol area report to NIK all ice sighted, and weather conditions and sea temperatures every 4 hours. The effectiveness and efficiency of the International Ice Patrol were enhanced considerably by the excellent response by shipping to this request. Over 57 percent of all ice reports was received from commercial vessels. Merchant ships worked NIK on 425, 454, 468, or 480 kcs. or their assigned frequency in the 8 mc. band. NIK worked on 444 or 8650 kcs.

During the 1957 season, Ice Patrol communications involved the handling of 37,693 radio messages and 6,841 landline messages. Statistics concerning the reports received from shipping are as follows:

Number of ice reports received from vessels	2,504
Number of vessels furnishing ice reports	411
Number of sea surface temperatures reported	12,030
Number of vessels furnishing sea surface temperatures	619
Number of requests for special information	204
Number of weather reports relayed to Observer, Washington	515
Total number of vessels worked (not including relays)	619

The percentage distribution of reporting vessels by nationality was as follows:

Nationality	*Percent of total*
Great Britain	27.2
U. S. A.	16.9
Germany	10.6
Norway	8.0
Sweden	6.3
Liberia	4 7
Netherlands	3.6
Panama	3.4
Canada	2.8
Italy	2.8
Denmark	2.2
France	2.2
Greece	2.2
Others (15 nations)	7.1
Total	100.0

GULF OF ST. LAWRENCE AND STRAIT OF BELLE ISLE

Aerial ice surveys of the Gulf of St. Lawrence were conducted by the Canadian Department of Transport. Capt. R. M. Carsell, Ice Information Officer, performed daily flights, weather permitting, from 7 March to 18 May. Ice conditions in the Gulf of St. Lawrence were reported to be the most severe and prolonged since 1948 season. The first passage was made on 1 April by a reinforced vessel but it was not until the middle of May that the gulf steamer tracks were unencumbered by ice.

Field ice from the Cabot Strait off Sable Island and the Nova Scotia coast reached as far south as latitude 45°15′ N. and coastwise traffic had to pass outside the island until the middle of May.

The Strait of Belle Isle experienced notably severe and lengthy ice conditions during 1957. The strait was not free for navigation until about 15 July as contrasted with the average annual opening date around the middle of June. Heavy concentrations of bergs existed in the strait and off the eastern entrance until the middle of August and occasional bergs were reported during the remainder of the year.

More detailed information is given in the summary of ice conditions by months.

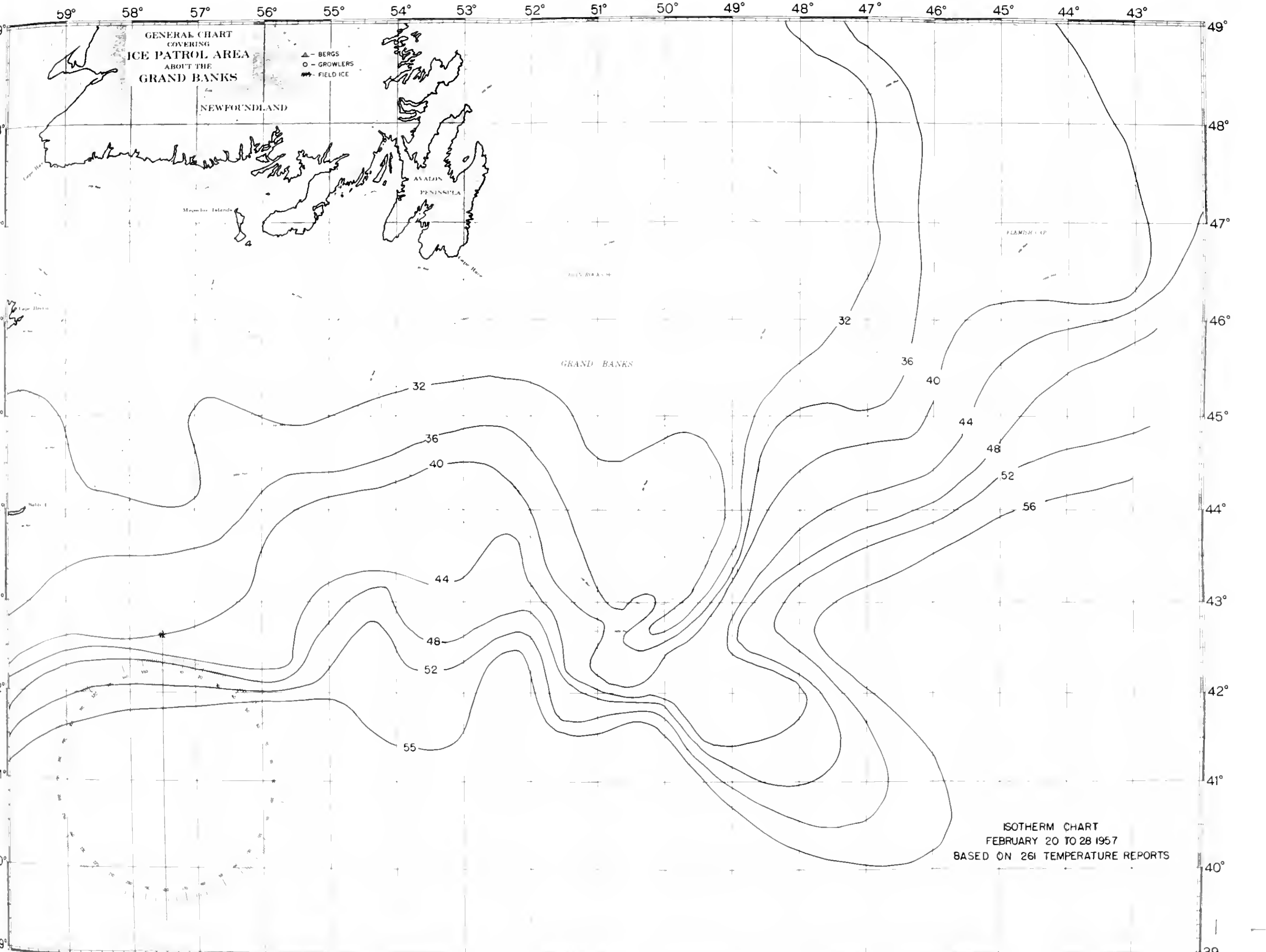

FIGURE 1.—Surface isotherms for the period 20–28 February 1957.

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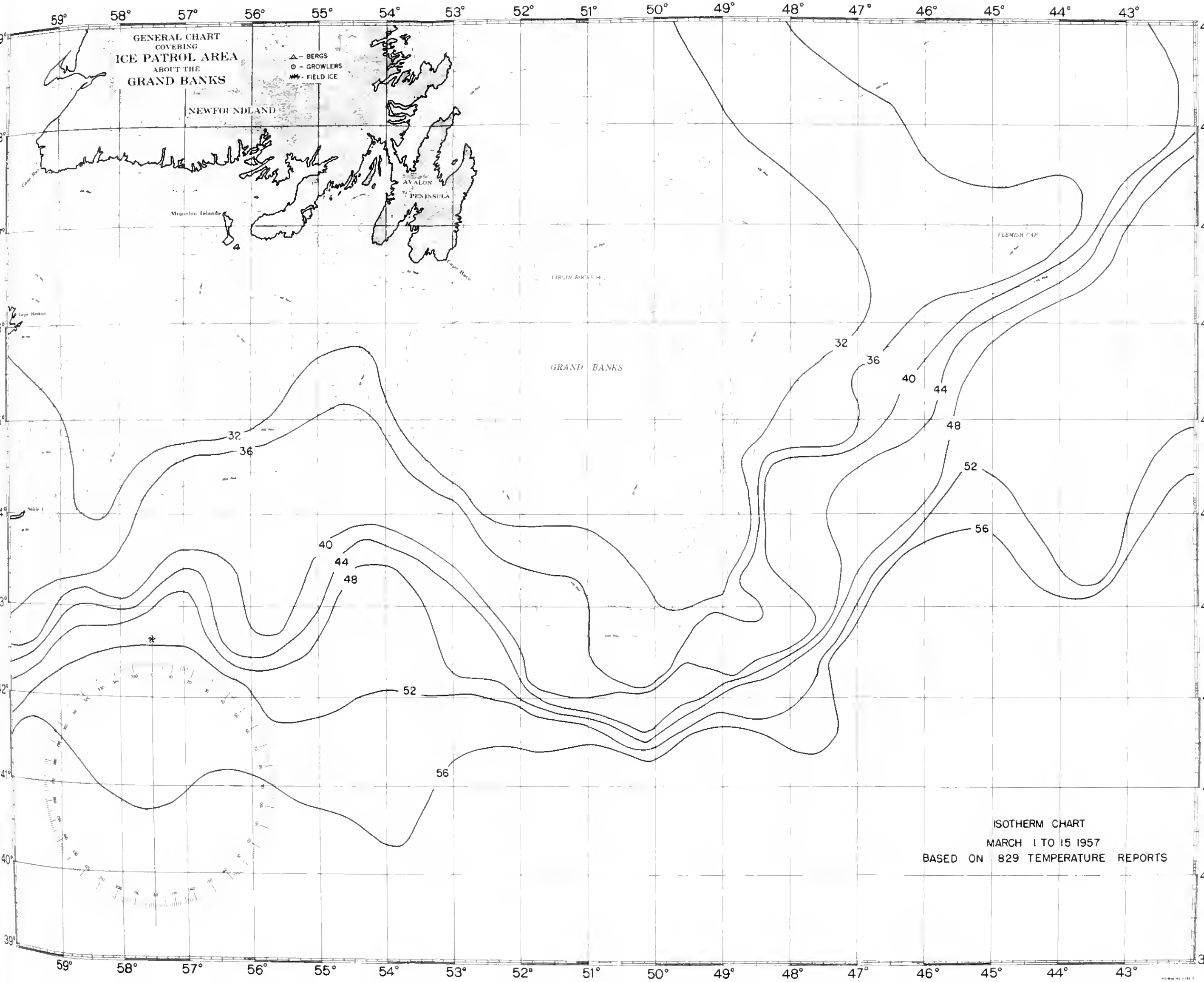

FIGURE 2.—Surface isotherms for the period 1–15 March 1957.

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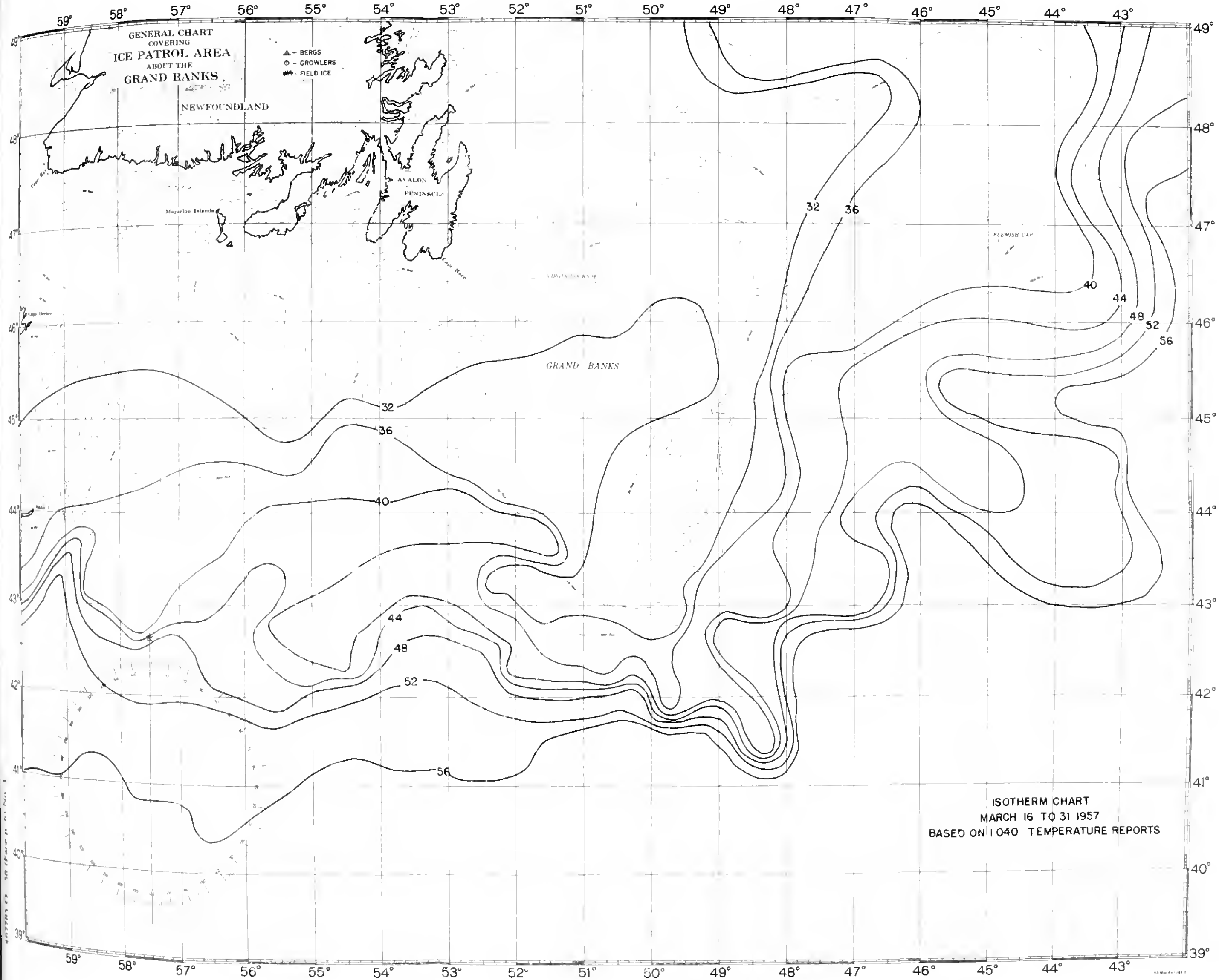

FIGURE 3.—Surface isotherms for the period 16–31 March 1957.

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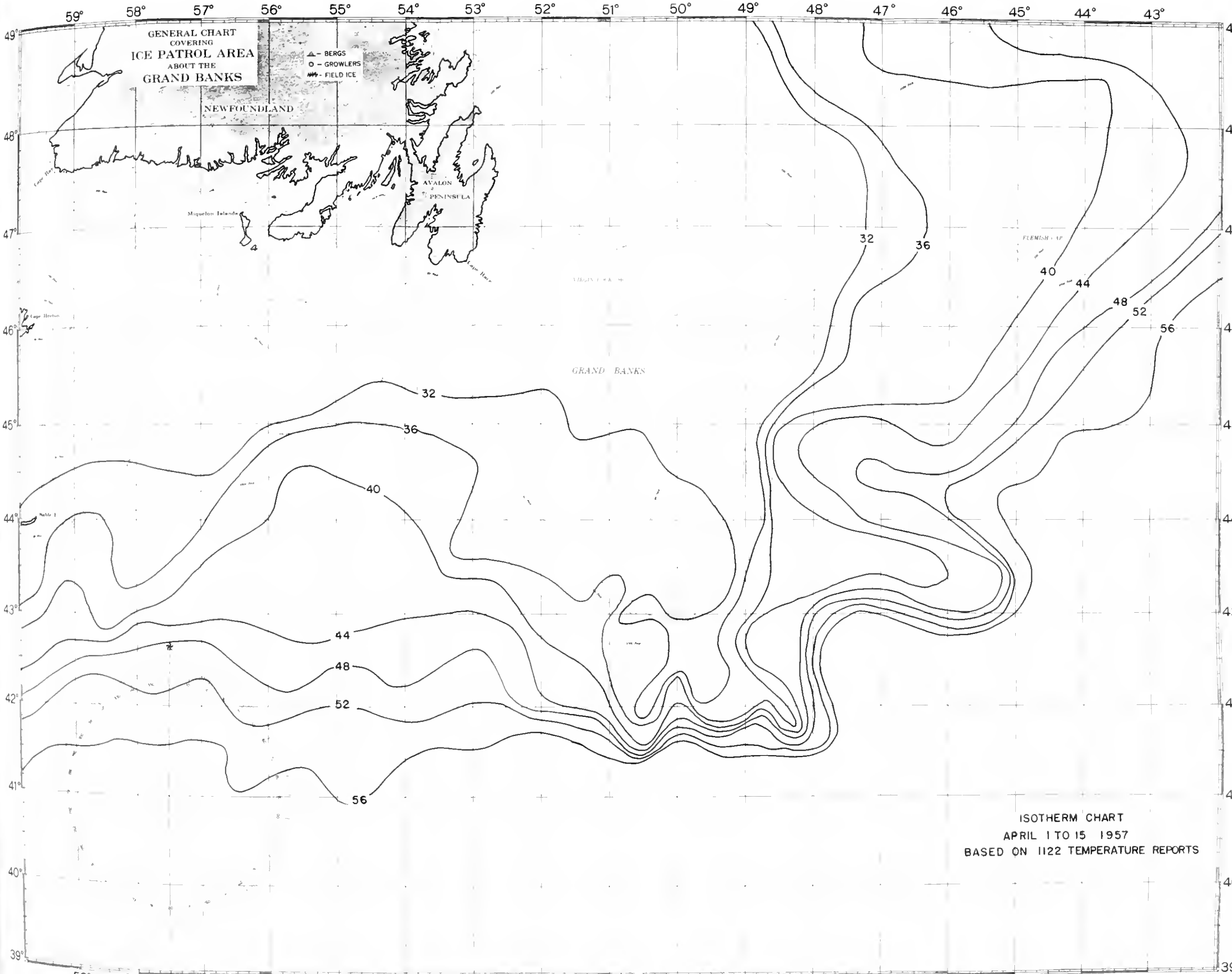

FIGURE 4.—Surface isotherms for the period 1–15 April 1957.

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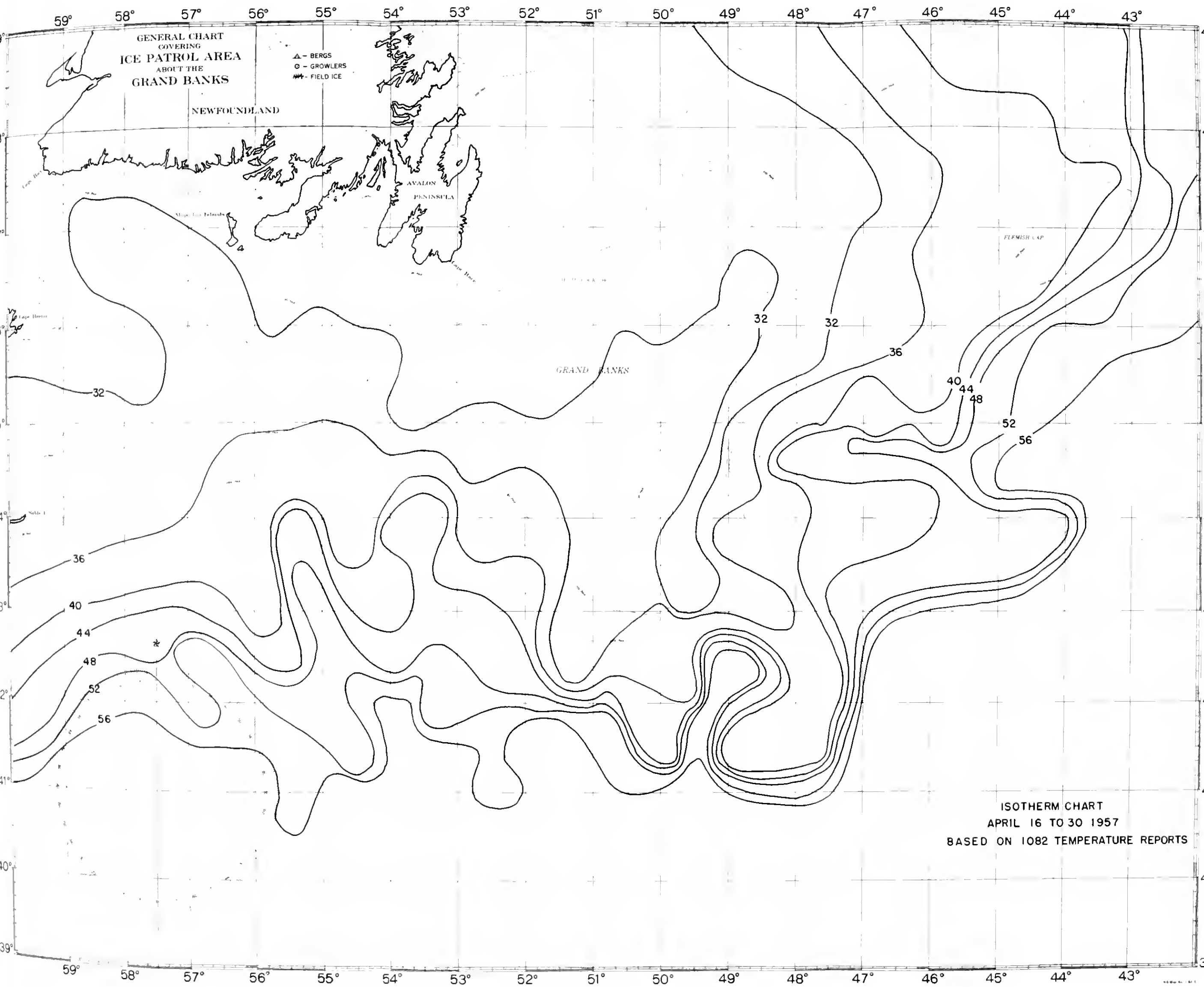

FIGURE 5.—Surface isotherms for the period 16–30 April 1957.

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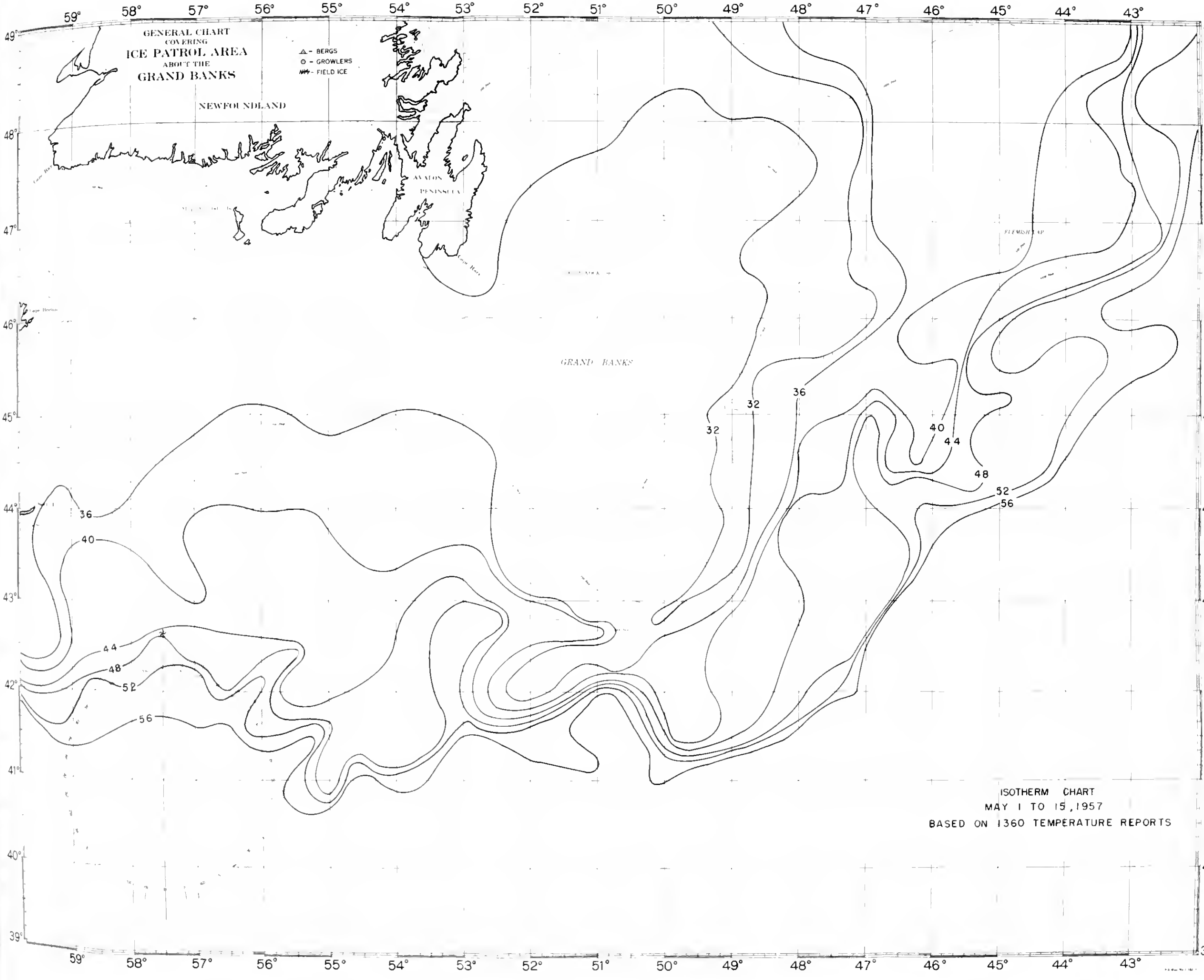

Figure 6.—Surface isotherms for the period 1-15 May 1957.

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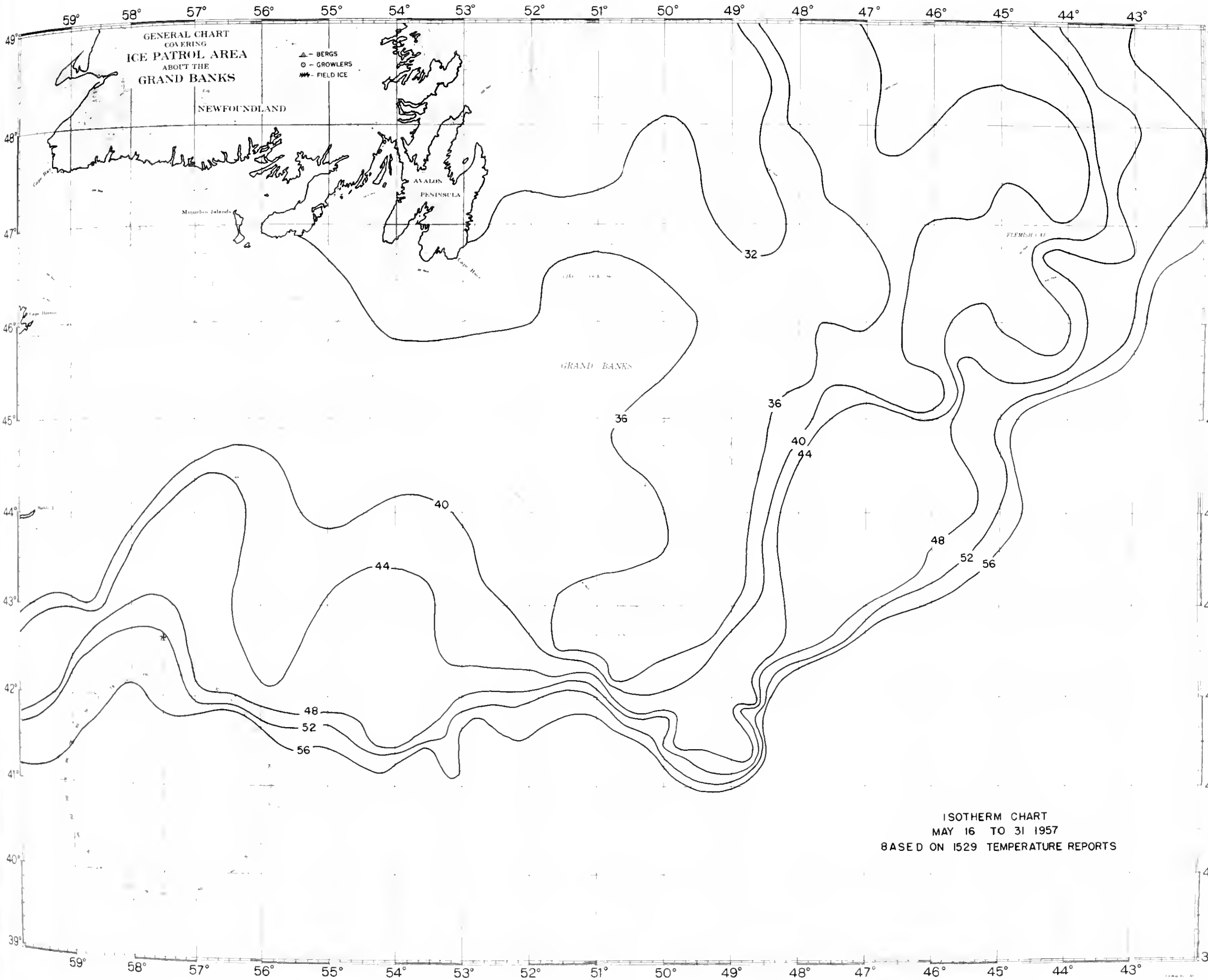

FIGURE 7.—Surface isotherms for the period 16–31 May 1957.

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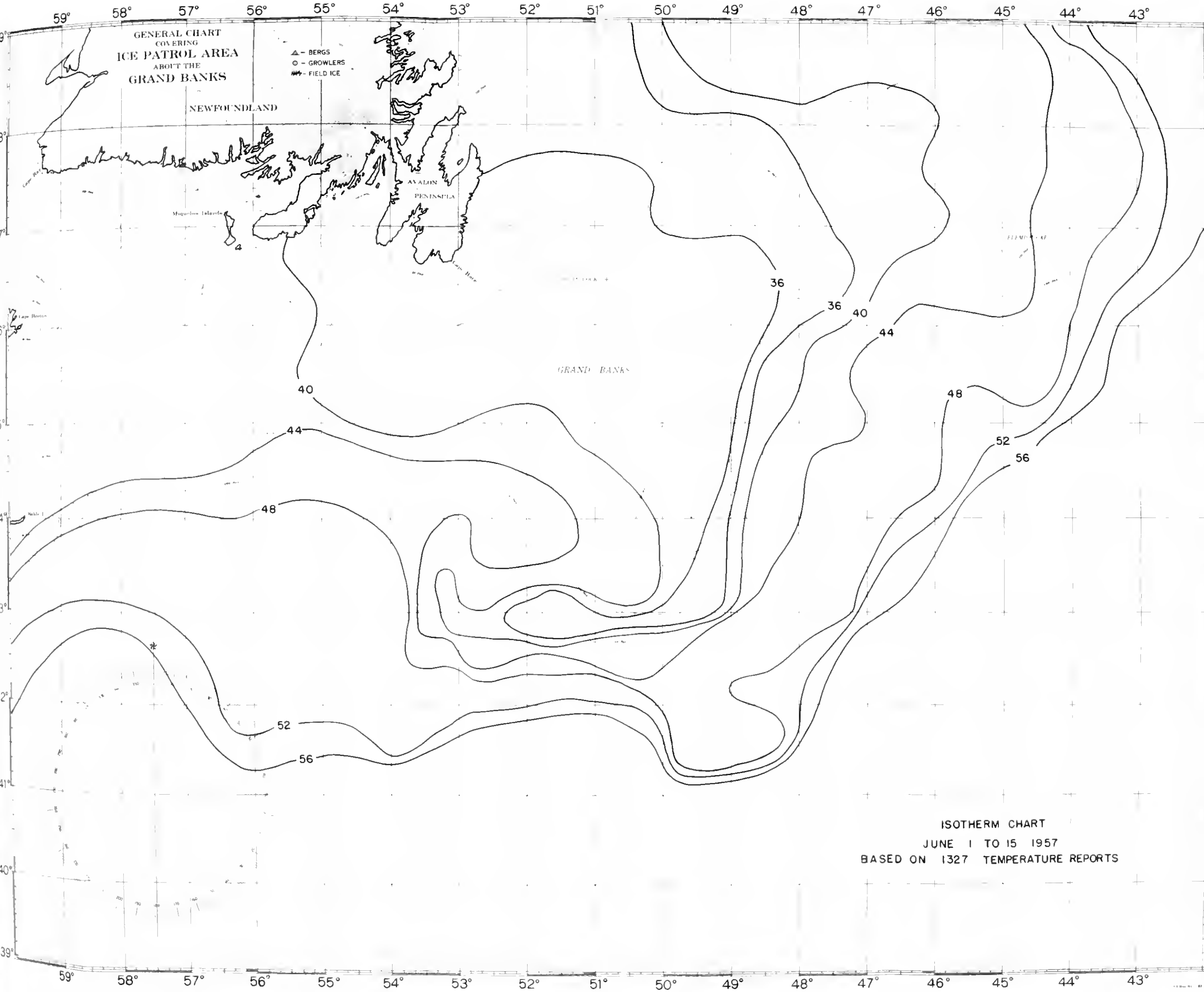

FIGURE 8.—Surface isotherms for the period 1-15 June 1957.

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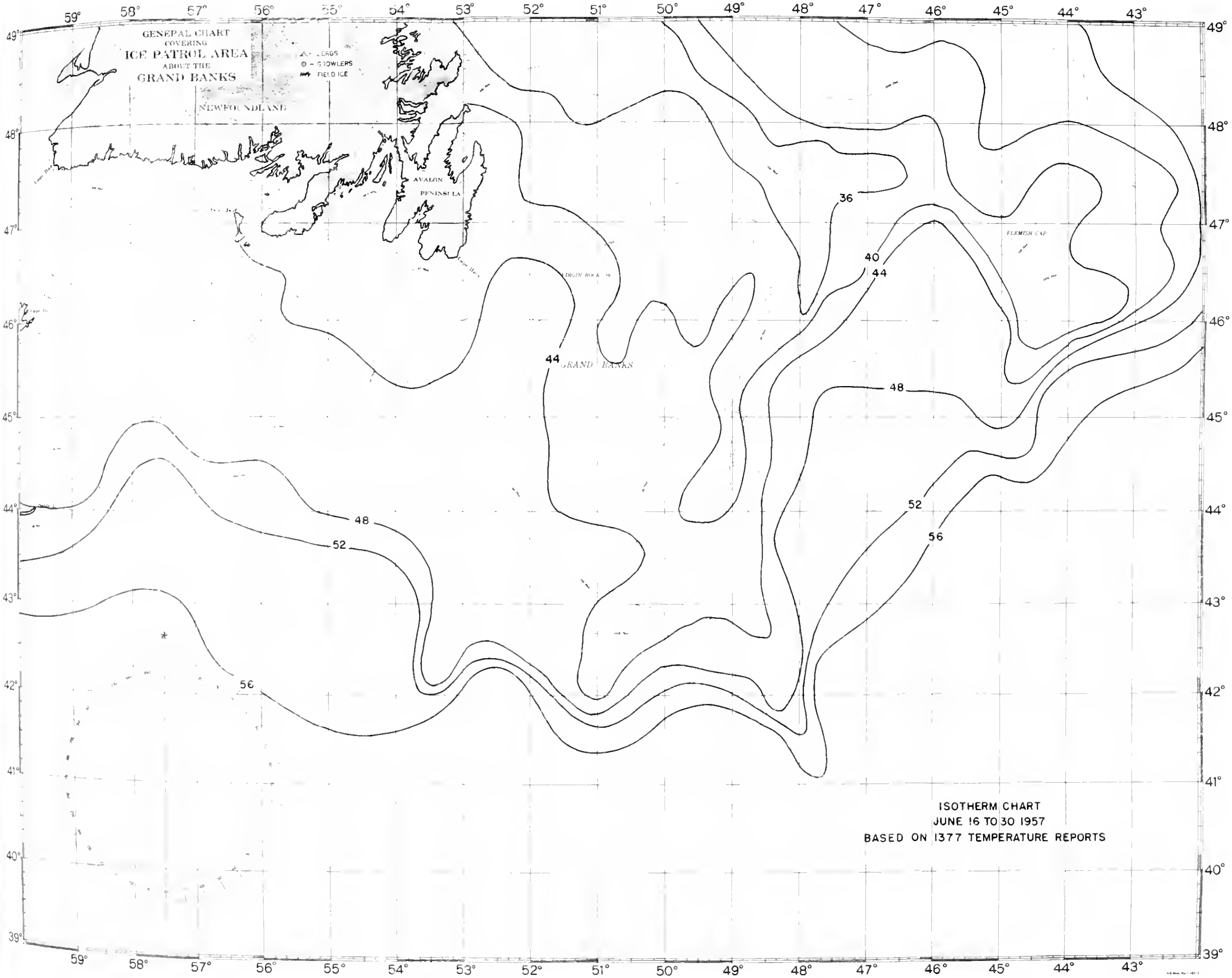

FIGURE 9.—Surface isotherms for the period 16-30 June 1957.

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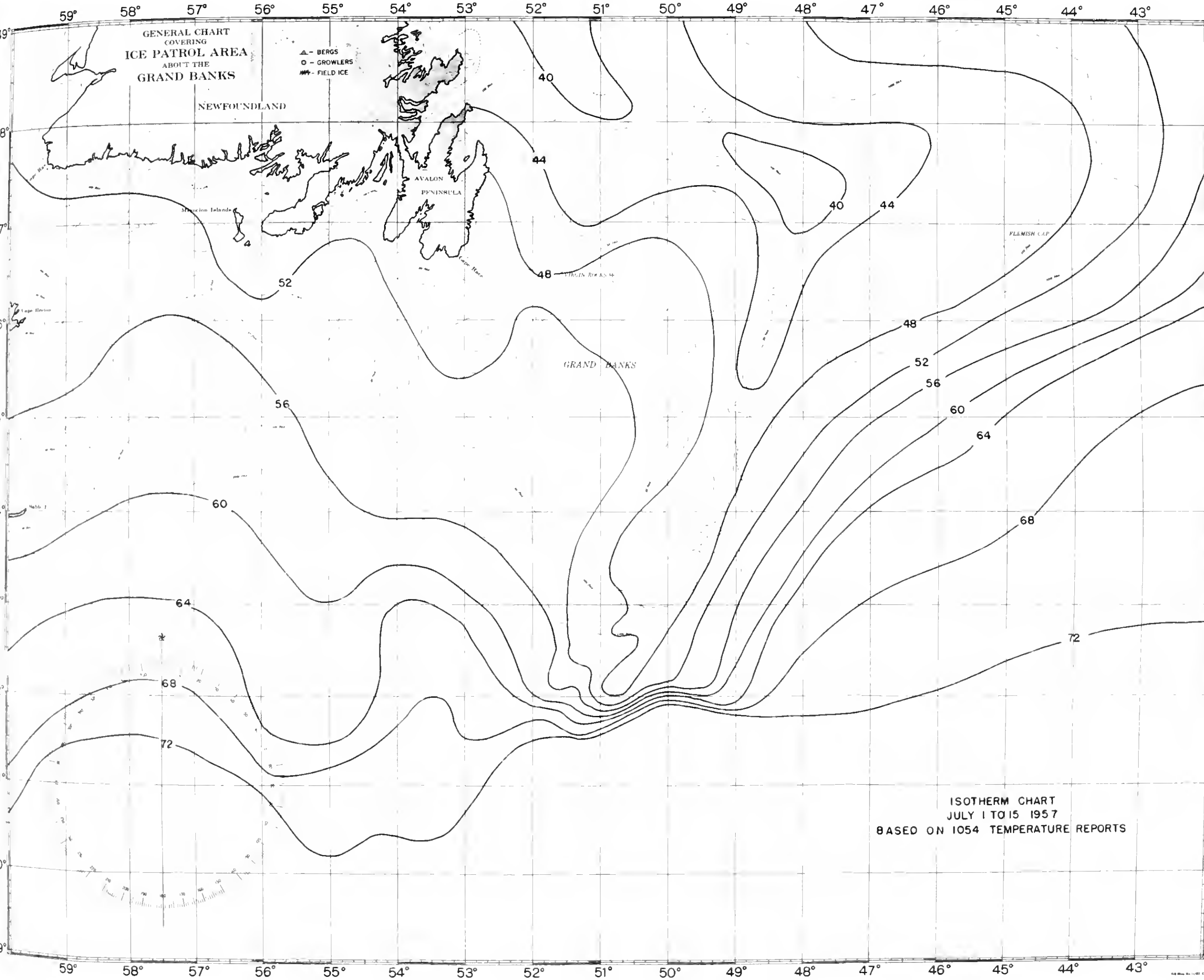

FIGURE 10.—Surface isotherms for the period 1-15 July 1957.

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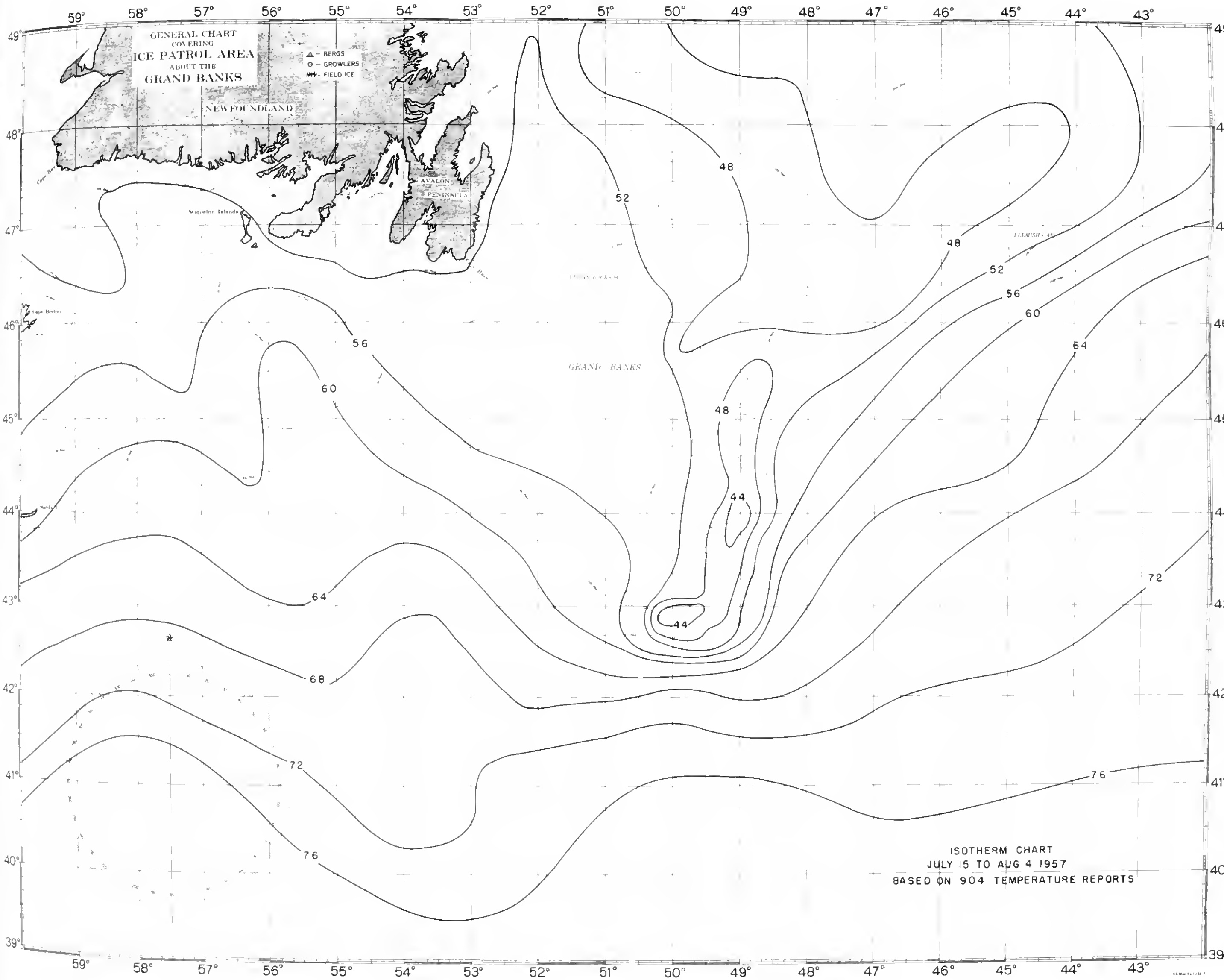

FIGURE 11.—Surface isotherms for the period 15 July–4 August 1957.

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ICE CONDITIONS 1957

JANUARY

The Grand Banks area was free of ice at the beginning of January, but as the month wore on, considerable field ice was carried into the area from the north. By the end of the month the southern limits of this field ice approximated a line from Cape Race to 46°25′ N., 46°30′ W. to 48°20′ N., 47°30′ W. Although the route from Cape Race to St. John's, Newfoundland, was encumbered by strings and patches of field ice, it remained navigable throughout the month.

Three bergs drifted south across the 48th parallel during the month. One moved slowly south along the east coast of the Avalon Peninsula; the other two traveled southeast along the northeast slope of the Grand Banks.

On 31 January, Cabot Strait was reported blocked by field ice extending east from the strait to longitude 45° W. and south to latitude 46° N.

FEBRUARY

The field ice limits in the Grand Banks area progressed southward during the first part of February. From the 19th to the end of the month they did not vary much from a line running from Cape Race to 46° N., 50° W. to 43°50′ N., 50°10′ W. to 43°50′ N., 48°20′ W. to 45°30′ N., 46°20′ W. to 48°00′ N., 47°20′ W.

The berg limits also advanced southward and by the 28th attained the line Cape Race to 43°40′ N., 48°30′ W. to Flemish Cap. Forty-three bergs crossed the 48th parallel in February. Most of these were carried southward along the east slope of the Grand Banks by the Labrador Current, four of five others drifted south just off the east coast of the Avalon Peninsula, and two others were reported in the vicinity of Flemish Cap.

A large area of close pack encumbered Cabot Strait and its approaches throughout the month. The limits of this pack on the 28th approximated a line from 45°40′ N., 60°20′ W. to 44°40′ N., 58°00′ W. to 45°20′ N., 57°00′ W. to 10 miles off Cape Ray.

The distribution of ice reported in February is shown graphically in figure 12.

MARCH

The first 7 days of March saw the field ice limits progress rapidly southward along the east slope of the Grand Banks. On the seventh these limits approximated a line from Cape Pine to 45°50′ N., 53°00′ W. to 45°40′ N., 50°10′ W. to 44°40′ N., 49°15′ W. to 42°30′ N., 50°00′ W. to 43°15′ N., to 47° N., 47° W. Gale winds and heavy seas dissipated the southern portion of this pack ice and drove the remainder westward, so that by the end of the month the field ice limits were a line from Cape

St. Mary to 45°50′ N., 54°00′ W. to 45°10′ N., 52°15′ W. to 47°20′ N., 51°30′ W. to 48°00′ N., 51°50′ W. Shipping bound to and from St. John's, Newfoundland, was severely hampered or interrupted during most of the month.

Although only 41 bergs drifted south across the 48th parallel in March, there was a wide geographical spread in the reported positions of these bergs, the most westerly on 16 March in 45°44′ N., 54°51′ W., the most southerly on the same day in 41°37′ N., 49°20′ W., and the most easterly on 8 March in 43°19′ N., 45°10′ W. The majority of bergs reported early in the month were distributed along the east slope of the Grand Banks, but during the latter half of March most of the bergs lay in the western half of the Grand Banks. The Flemish Cap sector remained clear of bergs in March.

A considerable area off the east coast of Nova Scotia remained covered with field ice throughout the month. The offshore limits of this pack generally lay within 75 miles south, east and north of Cape Breton. The steamer track from Cabot Strait to Gaspé Passage was not navigable in March. However, the northwestern half was almost clear of ice by the last of the month, and the pack in the remainder of the track was breaking up rapidly.

The distribution of ice reported in March is shown graphically in figure 13.

APRIL

Easterly winds kept the field ice on the Grand Banks in the western sector during the first week of April. On 5 April the southern limits of field ice ran from Cape Race to 45°00′ N., 52°40′ W. to 45° N., 52° W. to 48° N., 52° W. Later in the month the winds became westerly, and this condition, coupled with a fresh incursion of field ice from the north, enlarged the area encumbered by field ice and shifted the limits eastward. On 30 April these limits ran from Cape Race to 46°45′ N., 50°15′ W. to 46°10′ N., 49°00′ W. to 45°20′ N., 49°55′ W. to 45°10′ N., 49°25′ W. to 47°10′ N., 46°00′ W. to 48°00′ N., 46°50′ W.

The month of April began with two small bergs in 42° N., 49° W. and about a dozen others scattered along the western slope of the Grand Banks from the Tail of the Banks to Cape Race. The two southernmost bergs broke up and melted on 2 April in position 41°38′ N., 48°09′ W. The distribution of bergs changed markedly as time progressed. Westerly winds drove the bergs on the western slope of the Banks to the east, and the Labrador Current brought 172 additional bergs across the 48th parallel into the area between Flemish Cap and the eastern slope of the Banks. By the end of the month the southern berg limits were a line running from Cape Race to 44°40′ N., 49°45′ W. to Flemish Cap, with the heaviest berg concentration just off the northeast shoulder of the Banks.

The steamer track upriver from the northwest part of the Gulf of St. Lawrence was essentially free of ice on 1 April, but navigation on the track from Bird Rocks to Cabot Strait was hampered to a considerable degree by large masses of drifting ice until the end of the month. A belt of field ice about 60 miles wide encumbered the entire east coast of Cape Breton Island during all of April. The first ship to make passage from Cabot Strait to Montreal arrived on 1 April.

The distribution of ice reported in April is shown graphically in figure 14.

MAY

Heavy field ice persisted in that part of the Grand Banks north of 47° N. and west of 48° W. during most of May. The most southerly extension of the pack during this month occurred in the third week on the northeast slope of the Grand Banks and reached to latitude 46°15′ N. Thereafter, the limits of field ice steadily receded northwestward.

The breakup of the pack to the north of the Grand Banks released a large number of bergs, 265 of which drifted south across the 48th parallel during the month. Heavy concentrations of bergs developed off the east coast of the Avalon Peninsula and along the east slope of the Grand Banks as far south as the 45th parallel during the latter half of May. The Labrador Current carried about 10 bergs down the east slope of the Grand Banks south of latitude 44° N. The most southerly position attained by any of this ice was on 24 May in 41°14′ N., 49°47′ W. Only six or so bergs entered the Flemish Cap sector during May.

The east coast of Cape Breton Island was encumbered by a belt of heavy pack averaging about 40 miles wide during the first 2 weeks of the month, but by the 19th this pack had disappeared except for scattered strings and patches.

The Strait of Belle Isle and the eastern approaches thereto were blocked by heavy pack throughout May.

The distribution of ice reported in May is shown graphically in figure 15.

JUNE

The southern limits of field ice in the Grand Banks area continued to recede northwestward throughout the month of June. On the 8th they approximated a line from 47°40′ N., 52°30′ W. to 48°10′ N., 49°30′ W. to 49°00′ N., 50°30′ W. and on the 23d a line from Baccalieu Island to 48°40′ N., 50°00′ W. to 49° N., 50° W. By the end of the month the Grand Banks area was clear of field ice.

A total of 288 bergs crossed the 48th parallel in June, the largest number for any month of the season. Throughout the month heavy concentrations of bergs and growlers covered the entire northern portion of the Grand Banks outside the 50-fathom curve and the eastern slope of the Grand Banks as far south as latitude 45° N. Several bergs were to be found during the whole month along the eastern slope of the banks south of 45° N., off the Tail of the Banks between latitudes 42° N. and 43° N., and east of the banks to about longitude 45° W. between the 44th and 45th parallels. The most westerly berg position reported in June was 14 miles southwest of Cape St. Mary (27 June), the most southerly position was 41°56′ N., 50°03′ W. (22 June), and the most easterly was 44°02′ N., 44°44′ W. (29 June). One berg drifted south along the east slope of the Grand Banks, around the Tail of the Banks and west to 53° W., then north to the 100-fathom curve on the southwest slope of the Banks. The Flemish Cap sector was clear of all ice throughout June.

Heavy pack ice blocked the eastern approaches to the Strait of Belle Isle during the entire month.

The distribution of ice reported in June is shown graphically in figure 16.

JULY

No field ice existed on the Grand Banks in July. On the first of the month field ice extended along the coast of Labrador from the Strait of Belle Isle northward. By the middle of the month the Strait of Belle Isle was free except for heavy berg concentrations, and at the end of the month the southern limits of the field ice had receded to Cape Harrison, Labrador.

During the first week in July several bergs were located on the Tail-of-the-Banks between latitudes 42° and 43° N., and many bergs were on the northern slope of the Banks above 46° N. and to the east and south of the Avalon Peninsula. The second week was marked by a rapid recession of bergs on the Banks so that by the middle of the month there existed only scattered bergs east of the Avalon Peninsula between 47° N. and 48° N. and only one to the south. By the end of the month this recession had continued to such an extent that only the one southern berg remained in the Grand Banks area. Ice conditions for July are shown in figure 17.

The last mentioned berg which had been aground between 46° N. and 47° N. and about 48° W. in a depth of approximately 100 fathoms melted free around the middle of July and commenced a rapid drift to the south, showing that the Labrador Current was still remarkably well defined. The size of this berg as measured by the USS *Kirkpatrick* using visual and sonic methods, showed it to be block shaped, 125 feet above the waterline, 900 feet long at the surface and extending below the surface to a depth of 600 feet. The end of the month found it at the Tail-of-the-Banks and directly in the effective steamer track "C" (westbound). The drift of this berg is included in figure 18.

It is estimated that 113 bergs drifted south of the 48th parallel during July.

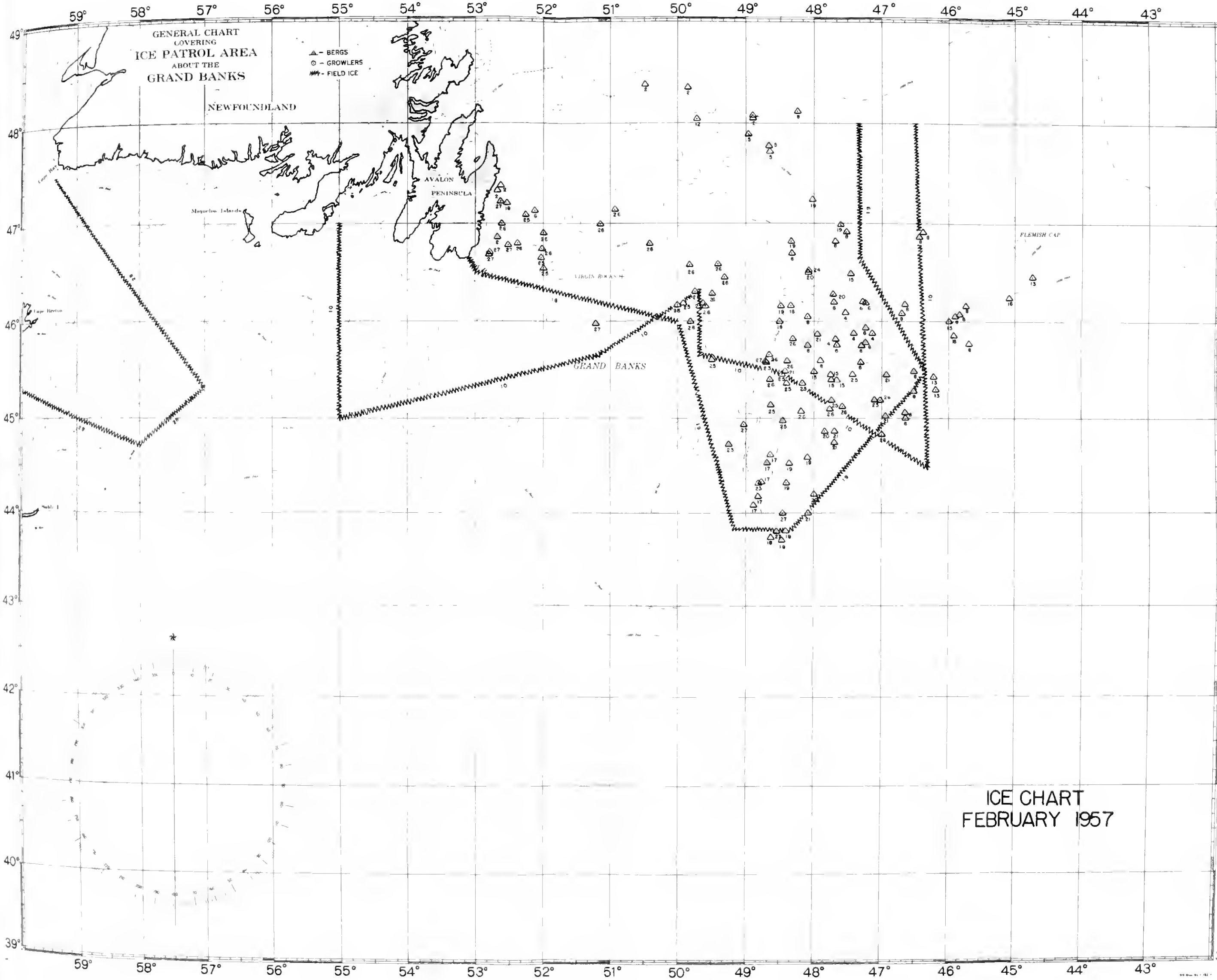

FIGURE 12.—Ice conditions, February 1957. Figures indicate day of month ice was sighted or reported.

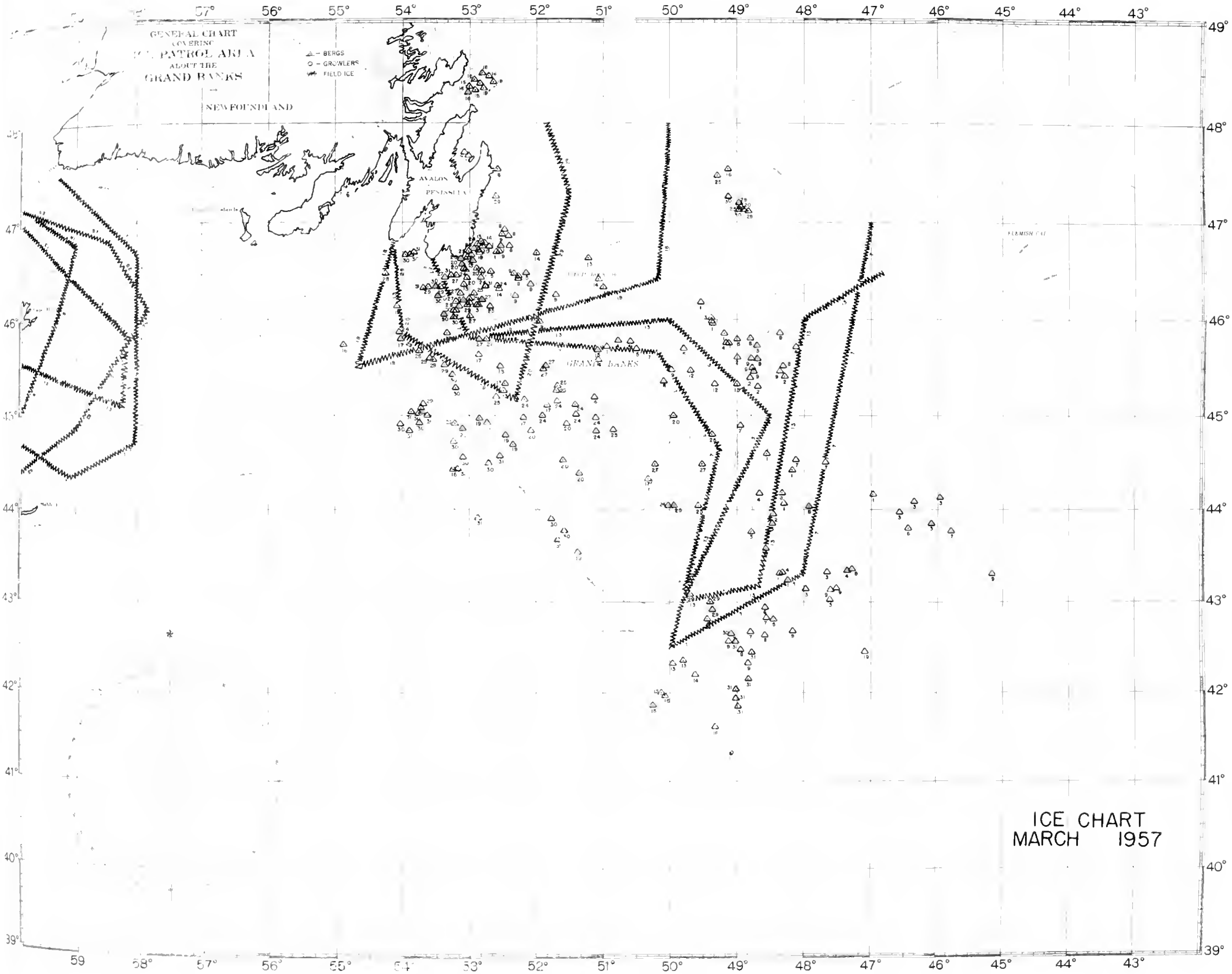

FIGURE 13.—Ice conditions March 1957. Figures indicate day of month ice was sighted or reported.

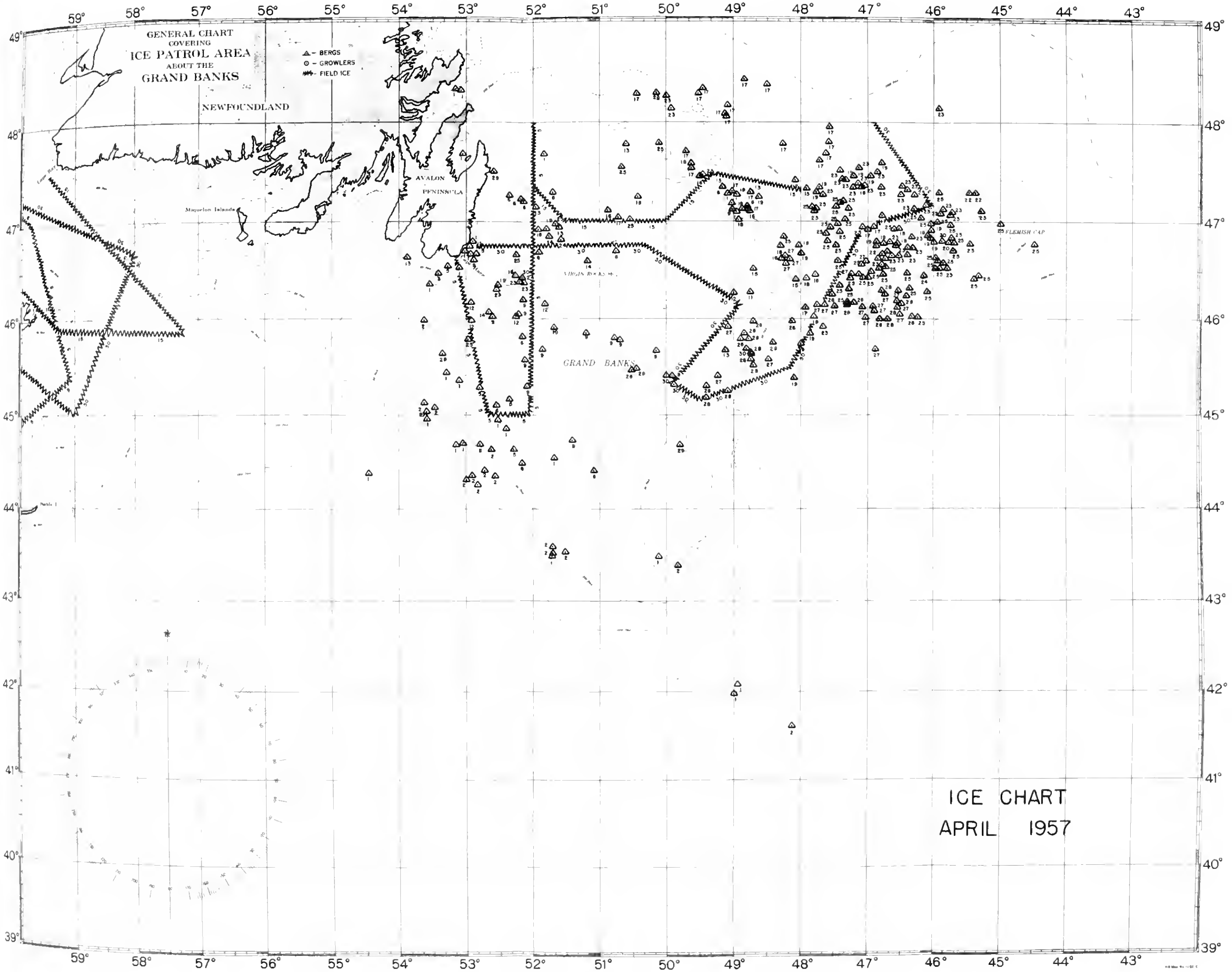

FIGURE 14.—Ice conditions, April 1957. Figures indicate day of month ice was sighted or reported.

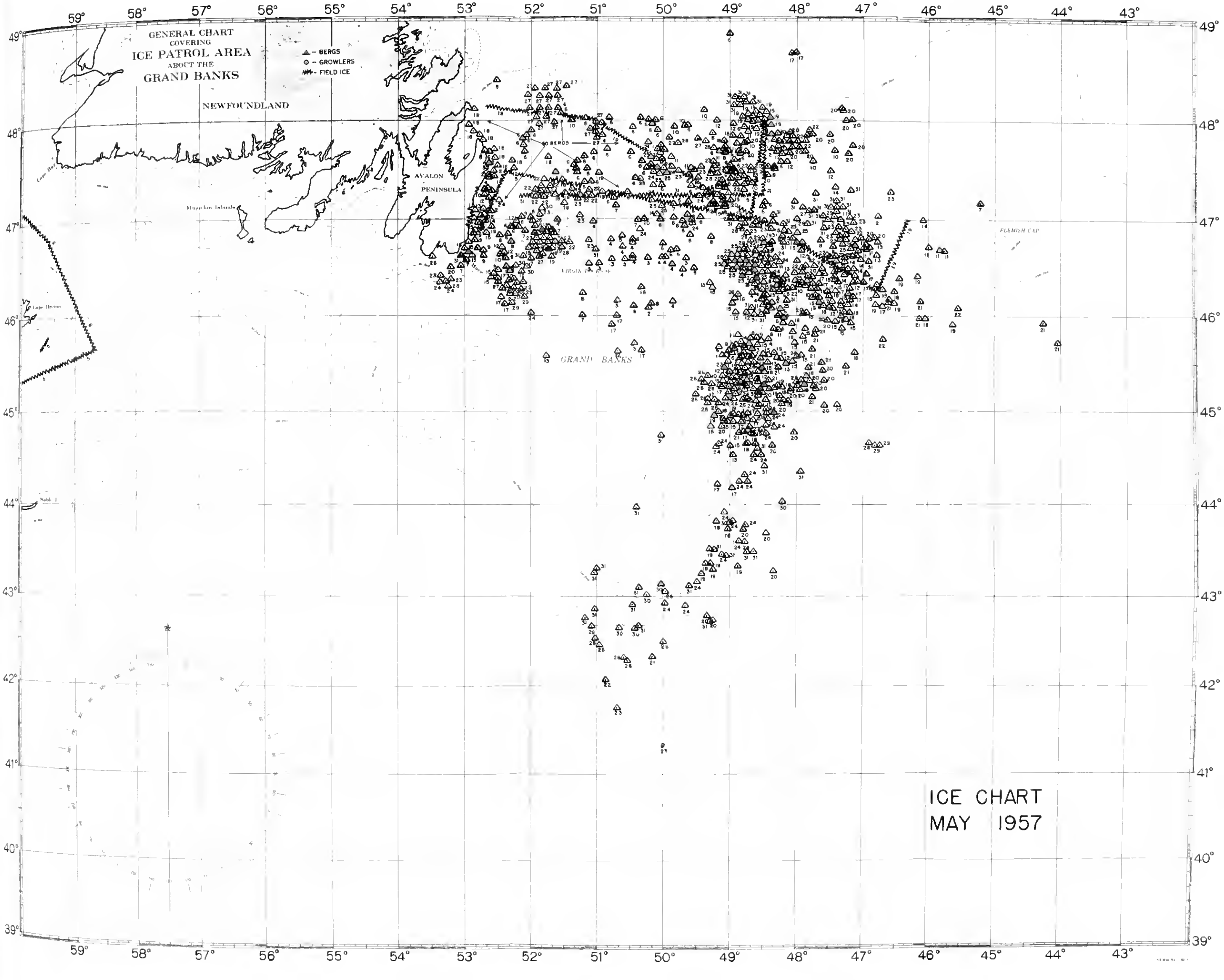

FIGURE 15.—Ice conditions, May 1957. Figures indicate day of month ice was sighted or reported.

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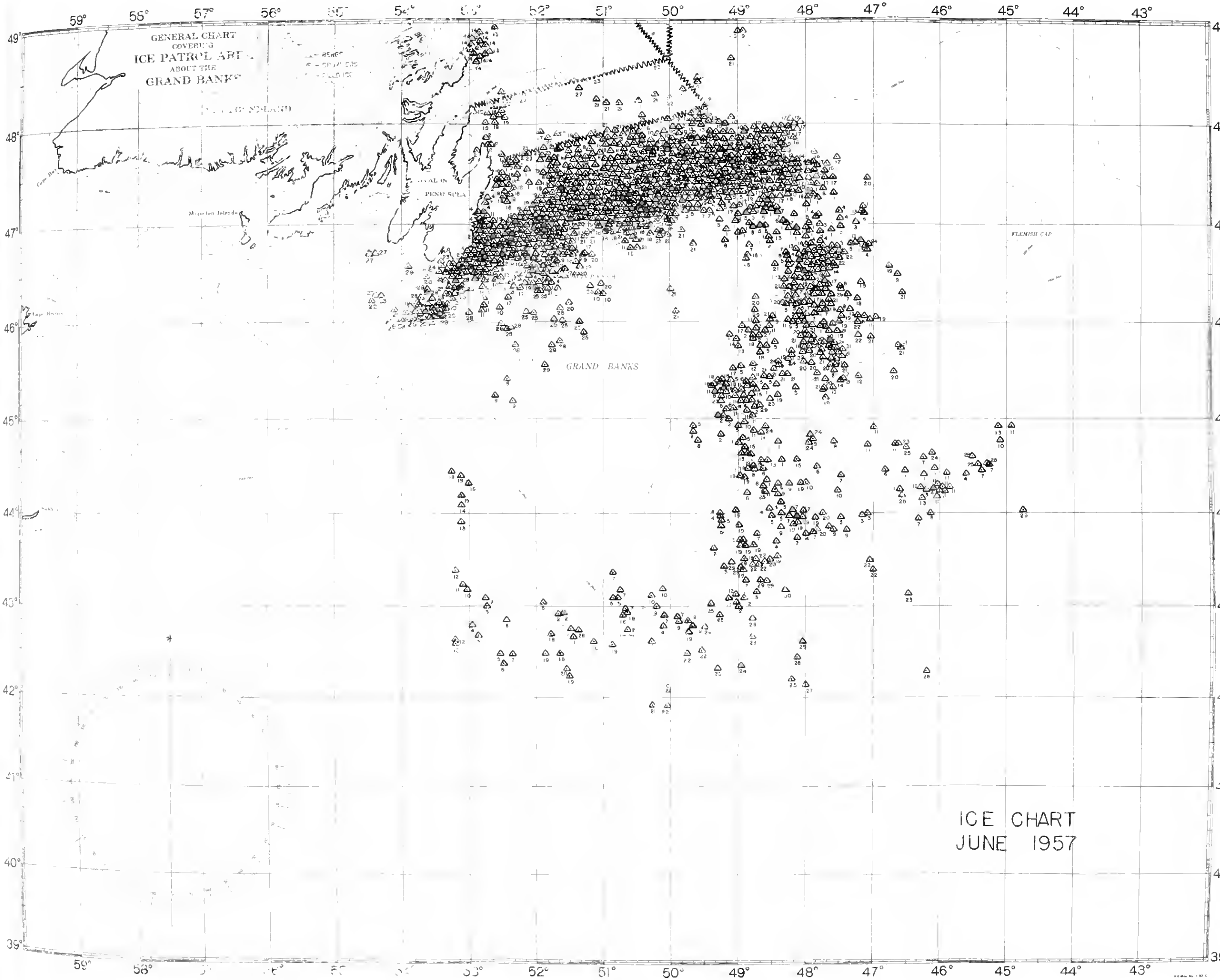

[illegible] —Ice conditions, June 1957. Figures indicate day of month ice was sighted or reported.

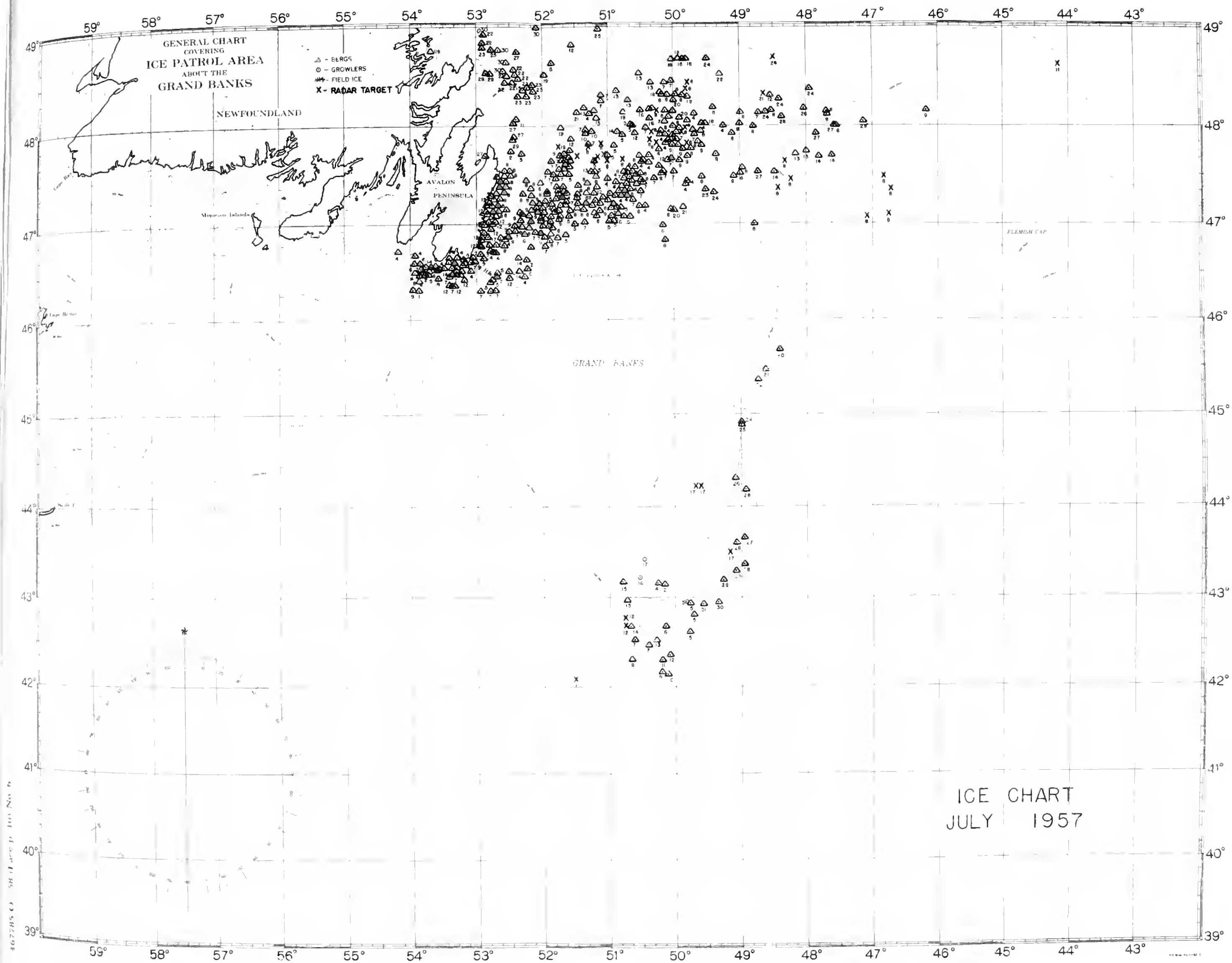

FIGURE 17.—Ice conditions, July 1957. Figures indicate day of month ice was sighted or reported.

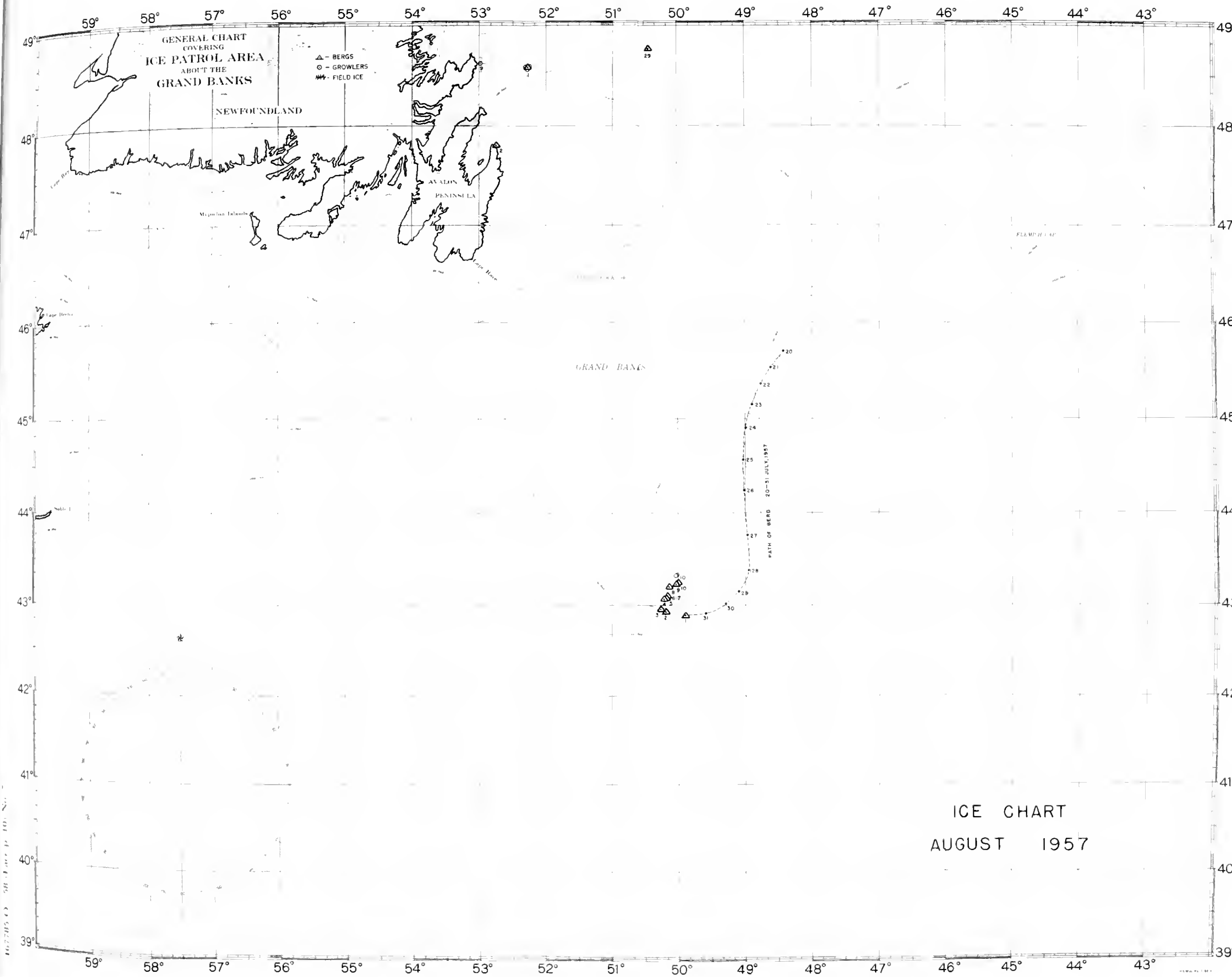

FIGURE 18.—Ice conditions, August 1957. Figures indicate day of month ice was sighted or reported.

AUGUST

The previously discussed berg remained a hazard to shipping in the Grand Banks area until it melted on 10 August in position 43°19′ N., 50°01′ W.

Several bergs and growlers were reported in the area east of the Avalon Peninsula in the early part of the month, but by the end of August no bergs existed south of 50° North Latitude. Scattered bergs and growlers were reported north of the 50th parallel inside the 1,000-fathom curve and in the Strait of Belle Isle throughout the month.

Ice conditions for August are shown in figure 18. It is estimated that six bergs drifted south of latitude 48° N. during the month.

SEPTEMBER TO DECEMBER

No ice was reported south of 51° N. during the months September through December.

Vessels using Canadian steamer track "G" through the Strait of Belle Isle reported occasional bergs and growlers in the eastern entrance of the strait and outward to longitude 50° W. throughout the period.

TABLE OF ICE REPORTS, 1957

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1	Jan. 7	USN vessel	51 20	50 00	Berg.
2	do	American Angler	47 22	49 26	2 bergs.
3	Jan. 10	USCG plane	47 42	49 16	Berg (same as No. 2).
4	Jan. 16	Mormacfir	49 06	51 06	Scattered field ice.
5	Jan. 24	St. Johns Signal Station	48 45	52 49	Slob ice.
6	Jan. 25	USCG plane	47 12	52 40	Berg.
7	Jan. 27	USN vessel	47 51	52 33	Patches pancake ice.
8	do	Unidentified vessel	49 14	49 11	Extensive area pancake ice.
9	do	do	47 50	51 00	Slush and pancake ice.
10	do	Lawn	47 57	48 43	Field ice.
11	do	Canadian Department of Transport.	46 48 to 46 27	59 24 59 32	Broken field ice.
12	Jan. 28	Mormacrio	47 58	48 31	Close field ice.
13	Jan. 29	USCG plane	49 08	49 46	Berg.
14	do	do	49 13	51 23	Do.
15	do	do	49 18	51 43	Do.
16	do	do	49 24	51 45	Do.
17	do	do	49 28	51 42	Do.
18	do	do	49 38	50 36	Do.
19	do	do	49 38	51 01	Do.
20	do	do	49 40	49 32	Do.
21	do	do	49 44	50 07	Do.
22	do	do	From 47 12 to 47 05	 52 50 51 20	Brash ice.
23	do	do	North of latitude 48° N. between longitudes 48°30′ W. and 52°30′ W.		Close pack ice.
24	do	USNS J. E. Kelley	From Scatari Island to 45 57	 59 34	Loose pancake ice.
25	do	do	46 48	58 50	Strings pancake ice.
26	do	do	47 05	52 43	Berg (same as No. 6).
27	Jan. 31	Unidentified vessel	47 05	52 37	Berg (same as No. 26).
28	do	USCG plane	47 00	52 38	Berg (same as No. 27).
29	do	do	48 15	48 45	Berg.
30	do	do	48 28	47 15	Do.
31	do	do	48 32	49 30	Do.
32	do	do	North and west of line From 47 05 to 46 30 to 46 30 to 48 15	 52 50 50 30 46 30 47 40	Field ice.
33	do	Unidentified vessel	46 45	47 20	Field ice.
34	do	do	From 46 50 to 47 00	 48 26 48 45	Heavy field ice.
35	Feb. 1	Arnarfell	55 55	35 25	Berg.
36	do	Stockholm	From 46 50 to 47 30	 46 35 46 30	Patches field ice.
37	do	USNS J. E. Kelley	From Cape Race to St. John's		Scattered strings slush ice.
38	do	TWA plane	52 00	51 00	Field ice, 90 percent cover.
39	Feb. 2	USCG plane	46 52	52 40	Berg (same as No. 28).
40	do	do	47 20	52 40	Berg.
41	do	Fort Avalon	47 23	52 39	Berg (same as No. 40).
42	do	USCG plane	48 03	48 54	Berg.
43	do	do	48 05	48 54	Berg.
44	do	do	48 21	49 50	Do.
45	do	do	48 23	50 29	Do.
46	do	do	From Cape Race to 46 15 to 47 21 to 46 44 to 46 44 to 47 15 to 48 00	 53 00 48 23 47 33 46 50 46 50 47 40	Field ice limits. Loose pancake ice south of lat. 47° N. 100 percent cover north of lat. 48° N.
47	Feb. 4	USN plane	45 50	47 40	2 bergs.
48	do	USCGC Spencer	45 53	47 09	Berg (same as No. 47).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
49	---do-----	-----do-----	45 53	47 26	Berg (same as No. 47).
50	---do-----	Mormacelm	58 30	37 00	6 bergs.
51	---do-----	USCGC Spencer	46 06	47 32	Belt of pack ice 12 miles wide, running N. and S. to limits of visibility.
52	---do-----	-----do-----	From 46 06 to 46 06	53 00 to 52 52	Thick slush ice.
53	Feb. 5	USCG plane	47 43	48 39	Berg.
54	---do-----	-----do-----	47 45	48 42	Do.
55	---do-----	-----do-----	47 52	48 58	Do.
56	---do-----	Unidentified vessel	56 37	37 00	Do.
57	---do-----	-----do-----	56 15	37 36	Growler.
58	---do-----	USNS Paoli	58 06	35 42	Berg and growlers.
59	---do-----	USCG plane	Cape Race to 45 58 to 47 06 to 46 52	52 43 to 49 38 to 48 07	Pack ice boundary.
60	Feb. 6	-----do-----	45 36	47 19	Berg (same as No. 48).
61	---do-----	-----do-----	45 46	47 40	Berg (same as No. 49).
62	---do-----	-----do-----	46 12	47 18	Berg.
63	---do-----	-----do-----	46 13	47 26	Do.
64	---do-----	-----do-----	47 07	52 09	Do.
65	---do-----	-----do-----	46 18 to 46 10 to 46 37	52 00 to 50 30 to 50 00	Field ice boundary.
66	---do-----	-----do-----	46 18 to 45 49 to 45 43 to 45 48	48 00 to 47 40 to 47 30 to 47 00	Do.
67	Feb. 7	-----do-----	Cape Race to 46 00 to 45 30	53 00 to 51 40	Do.
68	---do-----	Fort Erie	Cape Pine to 46 00	53 35	Do.
69	---do-----	-----do-----	Route from Cape Race to St. John's.		80 percent cover east of shore lead 5 miles wide.
70	Feb. 8	Isolde	45 48	47 18	Berg (same as No. 63).
71	---do-----	-----do-----	46 03	45 55	Berg.
72	---do-----	-----do-----	46 05	45 50	Do.
73	---do-----	-----do-----	46 10	45 45	Berg.
74	---do-----	-----do-----	46 11	46 40	Berg (same as No. 62).
75	---do-----	Unidentified vessel	45 00	46 40	Berg (same as No. 61).
76	---do-----	-----do-----	46 52	46 28	Berg (same as No. 53).
77	---do-----	USCGC Escanaba	45 05	46 40	Berg (same as No. 75).
78	---do-----	-----do-----	45 17	46 31	Berg (same as No. 60).
79	---do-----	-----do-----	48 06	48 15	Berg.
80	---do-----	USCG plane	45 36	47 56	Do.
81	---do-----	-----do-----	45 46	48 06	Do.
82	---do-----	-----do-----	45 56	47 14	5 bergs (same as No. 70).
83	---do-----	-----do-----	46 04	48 06	Berg.
84	---do-----	-----do-----	46 05	46 42	3 bergs (same as No. 74).
85	---do-----	-----do-----	46 12	47 43	Berg.
86	---do-----	-----do-----	Within 20-mile radius of 46 42	48 20	9 bergs.
87	---do-----	-----do-----	46 50	47 42	Berg (same as No. 54).
88	---do-----	-----do-----	46 55	47 31	Berg (same as No. 55).
89	---do-----	-----do-----	46 55	46 26	Berg (same as No. 76).
90	---do-----	Isolde	45 53	47 35	Growler.
91	---do-----	USCGC Escanaba	48 15 to 47 45	47 56 to 47 40	Field ice.
92	---do-----	USCG plane	46 30	50 00	Field ice boundary.
93	Feb. 9	USCGC Yakutat	45 45	45 38	Berg (same as No. 71).
94	---do-----	-----do-----	45 47	45 42	Berg (same as No. 72).
95	---do-----	Imperial Sarni	45 38 to 45 26	58 30 to 58 30	Field ice.
96	Feb. 10	Unidentified vessel	45 25	45 25	2 bergs (same as Nos. 93, 94).
97	---do-----	USN plane	45 30	46 32	Berg (same as No. 82).
98	---do-----	-----do-----	46 35	47 30	2 bergs (same as Nos. 87, 88).
99	---do-----	-----do-----	45 30	46 32	Southern limit field ice.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
100	---do-----	Fort Erie	Within 10-mile radius St. John's, Newfoundland.		95 percent cover, field ice.
101	---do----	-----do	St. John's Harbor		Ice, 3 inches thick.
102	Feb. 11	-----do	St. John's Harbor		Clear of ice.
103	Feb. 12	Unidentified Vessel	48 08	49 43	Berg.
104	---do-----	USCG plane	North of line from 45 40 to 45 40	51 00 to 53 00	Scattered field ice.
105	---do-----	Fort Erie	On route St. John's to Cape Pine.		Field ice, pancake and slush, 30 percent to 60 percent cover.
106	Feb. 13	Thalatta	45 18	46 11	Berg, 600 feet long, 40 feet high (same as No. 97).
107	---do-----	USCGC Casco	45 25	46 14	Berg (same as No. 106).
108	---do-----	-----do	46 29	44 45	Berg (same as No. 73).
109	---do-----	Fort Erie	46 20 and south 20 miles	54 20	Field ice; strings and slush.
110	Feb. 14	-----do	From 45 00 to 45 00 and northward	57 20 to 58 00	Strings of brash ice.
111	---do-----	USCGC Casco	45 54	53 41	Slush ice.
112	---do-----	Fort Avalon	45 15 and 5 miles to NE and SW	59 40	Loose field ice with pieces up to 4 feet thick.
113	---do-----	Groton Trails	46 31	47 14	Field ice.
114	Feb. 15	-----do	45 25	47 40	Berg, 50 feet high (same as No. 86).
115	---do-----	-----do	45 25	47 45	Berg, 100 feet high (same as No. 86).
116	---do-----	-----do	45 27	47 45	Berg, 30 feet high (same as No. 86).
117	---do-----	-----do	45 30	48 00	Bergs (same as No. 86).
118	---do-----	-----do	46 30	47 28	Berg, 70 feet high (same as No. 86).
119	---do-----	Noordam	46 06	46 00	Berg (same as No. 84).
120	Feb. 16	Atlanta	45 51	45 56	Berg (same as No. 73).
121	---do-----	Unidentified vessel	46 15	45 07	Berg (same as No. 73).
122	---do-----	OSV Bravo	51 36	50 50	Berg.
123	---do-----	-----do	56 37	50 31	Do.
124	---do-----	-----do	56 42	50 20	Do.
125	Feb. 17	Ice Patrol plane	44 06	48 52	Small berg (same as No. 81).
126	---do-----	-----do	44 11	48 49	Small berg (same as No. 83).
127	---do-----	-----do	44 38	48 39	Medium berg (same as No. 85).
128	---do-----	USN plane	44 20	48 47	Berg (same as No. 86).
129	---do-----	LaEnsenada	44 27	48 57	Berg (same as No. 128).
130	---do-----	-----do	44 27	48 57	Growler, scattered field ice.
131	---do-----	Ice Patrol plane	North of line from 46 25 to 46 05	53 30 to 51 45	Field ice, strings and patches.
132	---do-----	-----do	Inside line from 45 30 to 43 50 to 43 50 to 45 00	49 30 to 49 10 to 48 30 to 48 20	Field ice, strings and patches; pancake ice.
133	Feb. 18	Gloucester City	44 32	48 41	Berg (same as No. 127).
134	---do-----	USAF plane	44 18	49 36	Slush ice.
135	---do-----	USCGC Ingham	45 01	48 52	Field ice.
136	---do-----	-----do	45 13	50 48	Field ice, small floes.
137	Feb. 19	Ice Patrol plane	43 43	48 29	Large berg (same as No. 125).
138	---do-----	-----do	44 20	48 23	Berg (same as No. 128)
139	---do-----	-----do	44 33	48 21	Large berg (same as No. 127).
140	---do-----	Benguela	43 44	48 39	Berg (same as No. 137).
141	---do-----	Nova Scotia	43 49	48 25	Berg (same as No. 140).
142	---do-----	USN plane	46 00	48 30	Berg.
143	---do-----	-----do	46 10	46 30	Berg.
144	---do-----	-----do	46 10	47 20	Berg (same as No. 118).
145	---do-----	Ice Patrol plane	46 50	48 20	Small berg (same as No. 53).
146	---do-----	-----do	47 00	47 36	Small berg (same as No. 54).
147	---do-----	-----do	47 14	48 01	Medium berg (same as No. 55).
148	---do-----	-----do	47 17	52 32	Medium berg (same as No. 64).
149	---do-----	Empress of Britain	43 45	48 34	Growler.
150	---do-----	Ice Patrol plane	44 03	48 55	4 growlers.
151	---do-----	-----do	44 53	48 35	2 growlers.
152	---do-----	-----do	44 55 to 45 02	48 45 to 48 53	Numerous growlers.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
153	---do-----	-----do------------------	Line from Cape Pine to 46 00 to 46 45	 53 00 50 15	Southern limit of field ice.
154	---do-----	-----do------------------	Line from 46 50 to 48 00	 47 00 47 20	Eastern limit of field ice.
155	---do-----	-----do------------------	East of a line from 46 35 to 46 46 to 46 41 to 47 25	 53 05 52 50 52 40 52 00	Field ice.
156	Feb. 20	-----do------------------	44 12	48 00	Berg (same as No. 138).
157	---do-----	-----do------------------	44 52	47 51	Berg (same as No. 115).
158	---do-----	P. and T. Explorer--------	44 37	48 06	Berg (same as No. 139).
159	---do-----	USN plane---------------	46 18	47 43	Berg (same as No. 86).
160	---do-----	-----do------------------	46 20	48 05	Berg (same as No. 86).
161	---do-----	Ice Patrol plane-----------	43 59	48 32	Growler.
162	---do-----	-----do------------------	10 miles N. and S. of Cape Spear		Shore lead, 15 miles wide.
163	---do-----	RCN vessel---------------	From 45 37 to 45 21 to 45 10	 58 33 58 37 59 20	Scattered field ice.
164	---do-----	USNS J. E. Kelley--------	Off Cape Race		Slush ice.
165	---do-----	Unidentified vessel--------	45 36	48 42	Scattered field ice.
166	---do-----	USN plane---------------	Cape Race to 46 50 to 47 40 to 47 40 to 47 00 to 47 40 to 48 00 to 49 00 to 50 00 to 50 40 to 52 00	 52 00 51 30 50 40 47 40 48 10 50 15 49 25 50 00 51 30 52 20	Southern and eastern field ice limits.
167	Feb. 21	Joao Alvares Fagundes-----	44 43	49 15	Berg.
168	---do-----	Ice Patrol plane-----------	44 00	48 05	Berg (same as No. 137).
169	---do-----	-----do------------------	44 52	47 42	Berg (same as No. 157).
170	---do-----	-----do------------------	45 02	46 58	Berg (same as No. 156).
171	---do-----	-----do------------------	45 27	48 10	Berg (same as No. 86).
172	---do-----	-----do------------------	45 30	48 24	Berg (same as No. 142).
173	---do-----	-----do------------------	44 17	48 52	Growler.
174	---do-----	-----do------------------	44 27	48 29	Do.
175	---do-----	Unidentified vessel--------	45 36	48 42	Drift ice.
176	---do-----	Nova Scotia--------------	47 14	52 38	Rough patches field ice.
177	---do-----	USN plane---------------	From 46 15 to 46 05 to 46 15 to 46 15 to 46 00 to 45 45 to 45 30 to 45 40 to 45 40 to 45 30	 58 10 58 40 58 50 58 56 59 00 59 15 59 15 59 35 60 00 60 15	Pack boundary.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	'	°	'	
178	Feb. 22	Ice Patrol plane	45	51	47	58	Berg (same as No. 158).
179	do	Teal	45	16	58	31	Very heavy field ice.
180	do	Nova Scotia	45	29	58	10	Scattered patches slob ice, rafted pieces.
181	do	do	46	30	53	22	Heavy slob ice.
			and between longitudes 53°09' W. and 53°18' W.				
182	do	do	46	59	46	50	Broken field ice.
183	do	do	From 45	23	58	29	Heavily rafted field ice.
			to 45	22	58	36	
			to 45	01	58	55	
184	Feb. 23	USCGC Absecon	44	45	47	42	2 bergs (same as No. 169).
185	do	do	45	12	47	07	Berg (same as No. 144).
186	do	Grootebeer	44	48	46	24	Growler.
187	do	Stavangerfjord	46	59	46	50	Broken field ice.
188	Feb. 24	do	46	59	48	05	Berg (same as No. 145).
189	do	do	46	59	48	05	Broken field ice.
190	Feb. 25	Ice Patrol plane	44	20	48	49	Berg (same as No. 171).
191	do	do	44	59	48	29	Berg (same as No. 146).
192	do	do	45	08	48	38	Berg (same as No. 147).
193	do	do	45	11	47	46	Berg (same as No. 117).
194	do	do	45	23	48	10	Berg (same as No. 172).
195	do	do	45	23	48	24	Berg (same as No. 178).
196	do	do	45	27	47	27	Berg (same as No. 114).
197	do	do	45	28	48	23	Berg (same as No. 160).
198	do	Unidentified vessel	45	36	48	42	Berg (same as No. 197).
199	do	Ice Patrol plane	45	51	48	39	Berg (same as No. 188).
200	do	do	46	11	49	38	Berg.
201	do	do	46	11	49	57	Do.
202	do	do	46	17	49	30	Do.
203	do	do	46	17	51	45	Do.
204	do	do	46	34	52	00	Do.
205	do	do	46	40	52	02	Do.
206	do	do	47	04	52	14	Berg (same as No. 148).
207	do	do	45	20	47	57	Growler.
208	do	do	45	35	47	35	Do.
209	do	do	47	01	52	30	Do.
210	do	do	Eight miles off east coast Avalon Peninsula.				Shore lead.
211	do	do	From 46	31	52	35	Southern limits field ice.
			to 46	00	51	55	
			to 46	25	49	00	
			to 44	48	48	51	
			to 45	45	47	25	
212	do	Unidentified vessel	45	36	48	42	Field ice.
213	do	Fort Hamilton	44	55	58	06	Do.
			to 44	22	58	18	
214	Feb. 26	Ice Patrol plane	44	50	47	00	Berg (same as No. 170).
215	do	Porjus	44	59	48	29	Berg (same as No. 197).
216	do	do	45	04	48	11	Berg (same as No. 195).
217	do	do	45	05	47	48	Berg (same as No. 194).
218	do	do	45	08	47	35	Berg (same as No. 193).
219	do	Ice Patrol plane	45	11	47	01	Berg (same as No. 184).
220	do	do	45	35	48	39	Berg (same as No. 199).
221	do	do	45	36	48	27	Berg (same as No. 215).
222	do	do	45	40	48	40	Berg (same as No. 198).
223	do	do	45	50	48	19	Berg.
224	do	do	46	00	49	49	Berg (same as No. 201).
225	do	do	46	10	49	37	Berg (same as No. 200).
226	do	do	46	11	50	00	Berg (same as No. 202).
227	do	do	46	18	49	46	Berg.
228	do	do	46	28	49	20	Do.
229	do	do	46	35	49	26	Do.
230	do	do	46	36	49	49	Do.
231	do	do	46	44	52	02	Berg (same as No. 205).
232	do	do	46	48	50	24	Berg.
233	do	do	46	48	52	22	Do.
234	do	do	46	56	52	00	Berg (same as No. 204).
235	do	do	47	00	51	09	Berg.
236	do	do	47	00	52	37	Berg (same as No. 206).
237	do	do	47	09	50	56	Berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
238	---do-----	Unidentified vessel	45 36	48 42	Berg (same as No. 222).
239	---do-----	-----do	45 36	48 42	Drift ice, limits unobserved.
240	---do-----	Fort Avalon	Northerly direction from 45 15	58 20	Light field ice.
241	---do-----	-----do	North and south from 45 22	57 41	Strings slob ice.
242	---do-----	-----do	SE and NNW from 45 21	57 46	Light field ice.
243	---do-----	-----do	West from 45 07	58 55	Strings loose field ice.
244	---do-----	-----do	South of line from 45 02 to 45 12	58 44 to 58 37	Field ice with thick pieces.
245	Feb. 27	Mormacoak	43 48	48 33	Large berg (same as No. 190).
246	---do-----	Ice Patrol plane	44 00	48 28	Berg (same as No. 245).
247	---do-----	-----do	44 57	48 46	Berg (same as No. 192).
248	---do-----	-----do	44 57	49 02	Berg (same as No. 191).
249	---do-----	-----do	45 58	51 12	Berg (same as No. 203).
250	---do-----	-----do	46 43	52 48	Berg (same as No. 236).
251	---do-----	-----do	46 48	52 30	Berg.
252	---do-----	Unidentified vessel	45 36	48 42	2 bergs (same as Nos. 221, 238).
253	---do-----	Fort Avalon	46 41	52 47	Berg (same as No. 233).
254	---do-----	-----do	47 12	52 40	Berg.
255	---do-----	Ice Patrol plane	Line from Cape Race to 46 20 to 46 04	53 10 to 51 55	Southern limits field ice.
256	---do-----	Unidentified vessel	45 36	48 42	Packed slush ice.
257	Feb. 28	---do	45 36	48 42	Do.
258	Mar. 1	Cassiopeia	43 14	48 15	Berg (same as No. 245).
259	---do-----	Ice Patrol plane	43 18	48 22	Berg (same as No. 246).
260	---do-----	-----do	44 04	48 19	Berg (same as No. 167).
261	---do-----	-----do	44 10	46 59	Berg (same as No. 168).
262	---do-----	-----do	44 26	48 11	Berg (same as No. 215).
263	---do-----	-----do	44 32	48 35	Berg (same as No. 247).
264	---do-----	USN plane	45 57	49 23	Berg.
265	---do-----	Unidentified vessel	45 41	50 56	Berg (same as No. 249).
266	---do-----	-----do	45 45	49 08	Berg (same as No. 223).
267	---do-----	Ice Patrol plane	45 52	49 12	Berg (same as No. 266).
268	---do-----	-----do	45 59	49 23	Berg (same as No. 224).
269	---do-----	-----do	46 11	49 32	Berg (same as No. 225).
270	---do-----	-----do	46 31	52 48	Berg (same as No. 250).
271	---do-----	-----do	46 43	52 36	Berg (same as No. 251).
272	---do-----	-----do	46 44	52 32	Berg (same as No. 231).
273	---do-----	-----do	46 46	52 41	Berg (same as No. 234).
274	---do-----	Gileannes	46 08	46 50	Field ice with growlers.
275	---do-----	Unidentified vessel	45 24	48 30	Field ice.
276	---do-----	Berylstone	44 45 to 45 10	58 45 to 58 08	Southern limits field ice.
277	---do-----	Ice Patrol plane	Line from Cape Pine to 44 50 to 45 20	48 20 to 48 15	Southern limits field ice.
278	Mar. 2	City of Swansea	43 57	48 29	Berg and growlers (same as No. 260).
279	---do-----	Unidentified vessel	45 18	48 42	Field ice.
280	---do-----	-----do	45 24	48 48	Do.
281	---do-----	-----do	45 36	49 00	Do.
282	---do-----	-----do	45 48	52 18	Do.
283	---do-----	USCGC Spencer	46 00	53 22	Pancake ice.
284	---do-----	USCGC Coos Bay	SW of Cape St. Mary between 46 42 and 46 40	54 32 and 54 28	Sludge ice.
285	---do-----	-----do	From 46 21 to 46 11 to 45 56	53 57 to 53 38 to 53 10	Sludge ice.
286	---do-----	Alexandra Sartori	48 06	48 41	Slush ice.
287	Mar. 3	Ice Patrol plane	43 02	47 37	Berg (same as No. 156).
288	---do-----	-----do	43 09	47 58	Berg (same as No. 259).
289	---do-----	-----do	43 52	46 07	Berg.
290	---do-----	-----do	44 07	45 59	Berg (same as No. 261).
291	---do-----	-----do	45 44	48 43	Berg (same as No. 266).
292	---do-----	-----do	46 01	49 23	Berg (same as No. 268).
293	---do-----	-----do	46 09	52 53	Berg (same as No. 260).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
294	---do-----	Nordland	43 20	47 40	Berg (same as No. 259).
295	---do-----	Arabia	43 46	48 48	Berg (same as No. 263).
296	---do-----	-----do	43 51	48 28	Berg (same as No. 278).
297	---do-----	Wipunen	43 58	46 35	Berg (same as No. 289).
298	---do-----	USCGC Coos Bay	44 05	46 21	Berg (same as No. 261).
299	---do-----	Unidentified vessel	45 06	49 00	Field ice.
300	---do-----	-----do	45 42	48 48	Do.
301	---do-----	-----do	45 36	48 54	Do.
302	---do-----	-----do	45 36	49 02	Do.
303	---do-----	St. John's Signal Station	St. John's Harbor and 1 mile to seaward.		Slob ice.
304	---do-----	Ice Patrol plane	From Cape Race to 46 04	52 31	Field ice.
305	Mar. 4	Dorian	43 20	48 20	Berg (same as No. 296).
306	---do-----	Skau Troll	44 10	48 40	Berg (same as No. 221).
307	---do-----	Stavangerfjord	45 34	51 04	Berg (same as No. 265).
308	---do-----	-----do	45 43	48 08	Berg (same as No. 228).
309	---do-----	Unidentified vessel	45 46	49 10	Berg (same as No. 267).
310	---do-----	Alexandra Sartori	45 46	50 46	Berg (same as No. 265).
311	---do-----	Aguas Santas	44 55	47 32	Numerous growlers.
312	---do-----	American Manufacturer	47 19	52 27	2 growlers.
313	---do-----	Unidentified vessel	45 18	49 06	Field ice.
314	---do-----	Sandefjord	43 52	46 09	Small ice pieces.
315	---do-----	Dorian	From 43 40 to 43 32	48 06 to 48 29	Light field ice, with small berg (same as No. 295).
316	---do-----	Stavangerfjord	45 34	51 04	Field ice.
317	---do-----	-----do	From 45 50 to 46 00	49 06 to 48 12	Heavy field ice.
318	---do-----	American Manufacturer	47 13	52 34	Scattered slob ice.
319	---do-----	-----do	46 52	52 47	Do.
320	---do-----	Skau Troll	44 10 and extending at least 25 miles to SW.	48 40	Field ice.
321	---do-----	Hjodis Thorden	46 12	48 20	Small ice pieces.
322	Mar. 5	Ice Patrol plane	42 49	48 27	Berg (same as No. 288).
323	---do-----	-----do	43 20	47 21	Berg (same as No. 305).
324	---do-----	-----do	43 35	48 35	Berg (same as No. 306).
325	---do-----	-----do	45 42	50 30	Berg (same as No. 310).
326	---do-----	-----do	45 45	50 35	Berg (same as No. 226).
327	---do-----	-----do	46 28	52 10	Berg (same as No. 271).
328	---do-----	-----do	46 30	52 40	Berg (same as No. 272).
329	---do-----	Unidentified vessel	45 42	49 48	Berg (same as No. 309).
330	---do-----	-----do	45 48	49 00	Berg.
331	---do-----	-----do	45 42	49 06	Drift ice.
332	---do-----	-----do	45 36	49 06	Slush ice.
333	---do-----	Nova Scotia	46 28	53 11	Strings slush ice.
334	---do-----	American Manufacturer	46 35	53 00	Scattered slob ice.
335	---do-----	Honduras	South of Cape Race		Field ice.
336	---do-----	Ice Patrol plane	From 43 20 to 42 20 to 42 45 to 43 10	49 20 to 49 00 to 48 15 to 48 00	Southern limits field ice.
337	---do-----	St. John's Signal Station	St. John's Harbor and 5 miles seaward		Clear of ice.
338	Mar. 6	Empress of France	42 34	49 11	Berg.
339	---do-----	Ice Patrol plane	42 48	49 27	Berg (same as No. 338).
340	---do-----	-----do	42 57	48 34	Berg (same as No. 315).
341	---do-----	-----do	43 48	46 28	Berg (same as No. 289).
342	---do-----	Unidentified vessel	44 11	48 20	Berg (same as No. 262).
343	---do-----	-----do	45 48	48 48	Berg (same as No. 330).
344	---do-----	-----do	45 42	48 54	Field ice.
345	---do-----	Nova Scotia	47 05	52 45	Do.
346	---do-----	-----do	Cape Race to 46°44′ N.		Do.
347	---do-----	Ice Patrol plane	42 45 and northward	49 50	Do.
348	---do-----	-----do	Cape Race to Ferryland Head		Shore lead 10 miles wide with light slob.
349	Mar. 7	Irish Pine	42 40	49 05	Berg (same as No. 338).
350	---do-----	Media	42 41	48 49	Berg (same as No. 349).
351	---do-----	-----do	42 50	48 33	2 small bergs (same as No. 340).
352	---do-----	Ice Patrol plane	43 46	45 48	Berg (same as No. 341).
353	---do-----	-----do	44 31	47 41	Berg (same as No. 291).
354	---do-----	-----do	44 33	48 08	Berg (same as No. 229).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
355	---do-----	Nova Scotia	44 54	48 56	Field ice.
356	---do-----	-----do	44 36	49 05	Do.
357	---do-----	-----do	44 48	48 22	Small pieces ice.
358	---do-----	-----do	44 36	48 07	Do.
359	---do-----	-----do	44 24	48 33	Field ice.
360	---do-----	Unidentified vessel	45 48	48 48	Do.
361	---do-----	Newfoundland	44 43	48 30	Do.
362	---do-----	-----do	44 40	48 35	Loose strings slob ice.
363	---do-----	-----do	44 40	49 04	Loose strings field ice.
364	---do-----	USCGC Yakutat	44 54	48 26	Field ice.
365	---do-----	-----do	44 30	48 32	Do.
366	---do-----	-----do	44 09	48 34	Do.
367	---do-----	Cairngowan	42 33	50 02	Do.
368	---do-----	Canadian Dept. of Transport.	44 20	59 05	Southern field ice limits, Cabot Strait.
369	Mar. 8	Stockholm	42 39	48 36	Berg (same as No. 350).
370	---do-----	Ice Patrol plane	42 42	48 10	Berg (same as No. 369).
371	---do-----	-----do	43 19	45 10	Berg (same as No. 352).
372	---do-----	-----do	43 21	47 18	Berg (same as No. 323).
373	---do-----	-----do	44 02	47 55	Berg (same as No. 342).
374	---do-----	-----do	45 22	50 06	Berg (same as No. 325).
375	---do-----	-----do	45 33	48 19	Berg (same as No. 343).
376	---do-----	-----do	46 14	51 41	Berg (same as No. 235).
377	---do-----	-----do	46 22	52 05	Berg (same as No. 327).
378	---do-----	-----do	46 45	52 25	Berg (same as No. 254).
379	---do-----	-----do	46 53	52 26	Berg.
380	---do-----	-----do	46 55	52 29	Berg (same as No. 273).
381	---do-----	-----do	47 32	52 36	Berg.
382	---do-----	-----do	45 51	48 22	Berg (same as No. 269).
383	---do-----	USN plane	45 51	48 22	Berg (same as No. 382).
384	---do-----	Ice Patrol plane	42 33	48 32	Growler.
385	---do-----	-----do	N and E of a line from 47 05 to 46 40 to 46 05	52 30 to 52 50 to 52 00	Field ice, 75 percent cover.
386	---do-----	-----do	43 08 and northward	49 00	Strings and patches field ice.
387	---do-----	-----do	Between Motion Head and Cape Spear.		No shore lead.
388	---do-----	-----do	Between Cape Race and Motion Head.		Shore lead 10 miles wide.
389	---do-----	-----do	From 46 10 to 45 50 to 43 40	52 00 to 49 00 to 49 30	Southern limits of observed field ice.
390	---do-----	Unidentified vessel	45 35	48 54	Field ice.
391	---do-----	-----do	45 24	48 48	Do.
392	---do-----	Ellen Nielsen	43 46	48 33	Do.
393	---do-----	USNS J. E. Kelley	From 46 53 to 46 49	52 50 to 52 47	Do.
394	---do-----	Italia	44 20	59 40	Do.
395	---do-----	-----do	44 04	58 06	Do.
396	---do-----	Canadian Department of Transport.	Steamer track Cabot Strait to Gaspe' Passage.		Field ice, 90 percent cover.
397	---do-----	-----do	From St. Paul Island to 46 10 to 45 00 to 44 30 to St. Esprit Island	57 20 to 57 30 to 58 10	Field ice limits.
398	Mar. 9	Ice Patrol plane	42 29	48 58	Berg (same as No. 369).
399	---do-----	-----do	43 08	47 31	Berg (same as No. 372).
400	---do-----	-----do	45 12	51 08	Berg (same as No. 326).
401	---do-----	-----do	45 18	48 44	Berg (same as No. 315).
402	---do-----	-----do	45 28	48 21	Berg (same as No. 375).
403	---do-----	-----do	45 29	49 59	Berg (same as No. 374).
404	---do-----	-----do	45 30	48 47	Berg (same as No. 382).
405	---do-----	-----do	45 57	51 57	Berg (same as No. 376).
406	---do-----	-----do	45 59	52 00	Berg (same as No. 376).
407	---do-----	-----do	46 13	52 19	Berg (same as No. 377).
408	---do-----	-----do	46 24	52 15	Berg.
409	---do-----	-----do	46 26	52 17	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
410	...do.....	.....do..........	46 28	52 19	Do.
411	...do.....	.....do..........	46 41	52 35	Berg (same as No. 378).
412	...do.....	.....do..........	46 51	52 30	Berg (same as No. 379).
413	...do.....	Anunciada..........	42 20	48 50	Berg (same as No. 398).
414	...do.....	Unidentified vessel..........	42 29	48 58	Berg (same as No. 413).
415	...do.....	.....do..........	45 36	48 48	Berg (same as No. 404).
416	...do.....	American Veteran..........	43 07	47 37	Berg (same as No. 399).
417	...do.....	USN plane..........	45 36	48 42	Berg (same as No. 383).
418	...do.....	Ohio..........	43 00	49 10	Field ice.
419	...do.....	Italia..........	43 06	48 11	Do.
420	...do.....	USN plane..........	Cape Spear to Cape Race.....		Shore lead, 1 to 2 miles wide.
421	Mar. 10	Unidentified vessel..........	45 30	49 00	Field ice.
422	...do.....	USNS J. E. Kelley..........	46 32	53 00	Do.
423	...do.....	Newfoundland..........	St. John's to Cape Race in to 4 miles of coast.		Pack ice.
424	Mar. 11	USCGC Rockaway..........	43 14	49 14	Growler.
425	...do.....	Unidentified vessel..........	45 24	49 06	Field ice.
426	...do.....	.....do..........	46 36	49 00	Do.
427	...do.....	Grootebeer..........	43 03	50 14	Do.
428	Mar. 12	Unidentified vessel..........	45 20	49 20	Berg (same as No. 401).
429	...do.....	Borgholm..........	45 29	49 42	Berg (same as No. 403).
430	...do.....	Guadalupe..........	46 30	46 58	Field ice.
431	...do.....	Borgholm..........	46 20	48 45	Do.
432	...do.....	Unidentified vessel..........	45 30	49 12	Do.
433	Mar. 13	Ice Patrol vessel..........	42 20	49 49	Berg (same as No. 398).
434	...do.....	Ice Patrol plane..........	42 22	49 48	Berg (same as No. 433).
435	...do.....	USCGC Ingham..........	45 15	52 30	Berg (same as No. 405).
436	...do.....	Ice Patrol plane..........	54 20	52 27	Berg (same as No. 435).
437	...do.....	.....do..........	45 21	49 00	Berg (same as No. 428).
438	...do.....	.....do..........	45 32	52 33	Berg (same as No. 406).
439	...do.....	.....do..........	46 20	51 00	Berg.
440	...do.....	.....do..........	46 22	53 05	Berg (same as No. 409).
441	...do.....	.....do..........	46 36	52 57	Berg (same as No. 411).
442	...do.....	.....do..........	46 37	51 12	Berg.
443	...do.....	.....do..........	47 40	53 01	Berg (same as No. 410).
444	...do.....	.....do..........	46 48	52 50	Berg (same as No. 412).
445	...do.....	.....do..........	42 20	49 50	Growler.
446	...do.....	.....do..........	46 21	50 32	Do.
447	...do.....	.....do..........	46 25	50 41	Do.
448	...do.....	USCGC Ingham..........	45 18	52 35	Do.
449	...do.....	Ice Patrol plane..........	From Cape Pine to Cape Race.		Heavy field ice.
450	...do.....	USN plane..........	From Cape Race to Cape St. Francis.		25-mile-wide belt close pack.
451	...do.....	Unidentified vessel..........	Between 44 49 and 45 03	59 08 and 58 27	Field ice.
452	...do.....	.....do..........	45 30	48 36	Do.
453	...do.....	Canso Radio..........	Michaux Point to Cranberry Island.		Heavy close pack.
454	Mar. 14	Ice Patrol vessel..........	42 13	49 38	Berg (same as No. 434).
455	...do.....	Unidentified vessel..........	46 22	53 33	Berg (same as No. 440).
456	...do.....	Ice Patrol plane..........	46 24	51 04	Berg (same as No. 439).
457	...do.....	.....do..........	46 40	52 00	Berg (same as No. 408).
458	...do.....	.....do..........	46 47	52 47	Berg (same as No. 444).
459	...do.....	Ice Patrol vessel..........	42 02	49 58	Growler.
460	...do.....	.....do..........	42 03	49 56	Do.
461	...do.....	USCGC Ingham..........	46 14	54 00	Field ice.
462	...do.....	Unidentified vessel..........	46 20 to 46 25 to 46 35	51 30 to 50 10 to 50 00	Eastern limits field ice.
463	Mar. 15	Capetan Psarros..........	41 52	50 16	Berg (same as No. 454).
464	...do.....	Ice Patrol vessel..........	42 00	50 08	Berg (same as No. 463).
465	...do.....	New York..........	44 58	49 34	Radar target, probable berg.
466	...do.....	Unidentified vessel..........	45 42	51 04	Berg (same as No. 442).
467	...do.....	New York..........	44 59	50 23	Growlers.
468	Mar. 16	Ice Patrol vessel..........	41 37	49 20	Berg (same as No. 464).
469	...do.....	Santa Mafalda..........	44 26	53 14	Berg (same as No. 435).
470	...do.....	Fort Hamilton..........	45 41	54 51	Berg (same as No. 407).
471	...do.....	Ice Patrol plane..........	47 12	48 58	Berg.
472	...do.....	.....do..........	47 32	49 08	Do.
473	...do.....	.....do..........	Conception Bay..........		Do.
474	...do.....	.....do..........	Trinity Bay and entrance.....		9 bergs.
475	...do.....	.....do..........	48 00 to 47 40	50 00 to 50 50	Eastern limits observed field ice.
476	...do.....	Fort Hamilton..........	46 07	54 27	Field ice.
477	...do.....	Imperial Halifax..........	47 11	52 31	Heavy slob ice.
478	Mar. 17	Gull Oscar..........	44 20	50 20	Berg (same as No. 465).

No.	Date	Name of vessel	North latitude (° ′)	West longitude (° ′)	Description
479	---do-----	Ashkiabad	44 59	52 11	Berg (same as No. 232).
480	---do-----	-----do	45 05	51 50	Berg (same as No. 227).
481	---do-----	Imperial Halifax	45 47	54 02	Berg (same as No. 455).
482	---do-----	-----do	46 37	52 52	Berg (same as No. 441).
483	---do-----	-----do	46 45	52 49	Berg (same as No. 458).
484	---do-----	Ice Patrol vessel	41 19	49 06	Growler.
485	---do-----	Canadian Department of Transport.	St. Paul Island to 46 45 to 46 00 to 45 00 to 44 30	 59 00 59 22 60 00 62 10	Field ice limits.
486	---do-----	USS Edisto	From 47 30 to 46 30 to 46 20	 52 30 53 00 53 35	Western limits field ice.
487	Mar. 18	Agathi	43 32	51 23	Berg and growlers (same as No. 237).
488	---do-----	USCGC Acushnet	44 41	52 21	Berg and growlers (same as No. 480).
489	---do-----	-----do	44 45	52 45	Berg (same as No. 479).
490	---do-----	Grootebeer	45 37	51 50	Field ice.
491	---do-----	-----do	46 06	50 10	Light field ice.
492	Mar. 19	Kragholm	42 27	47 06	Small berg (same as No. 354).
493	---do-----	Ice Patrol plane	44 47	52 28	Berg (same as No. 488).
494	---do-----	-----do	44 58	52 50	Berg (same as No. 489).
495	---do-----	-----do	46 07	54 05	Berg (same as No. 481).
496	---do-----	USNS Vela	46 41	52 51	Berg (same as No. 482).
497	---do-----	-----do	9 miles off Cape Pine		Ice field.
498	Mar. 20	Cairndhu	44 32	51 36	Berg.
499	---do-----	-----do	45 00	49 55	Do.
500	---do-----	Ice Patrol plane	44 23	51 22	Do.
501	---do-----	-----do	44 50	52 05	Berg (same as No. 493).
502	---do-----	-----do	44 56	51 33	Berg (same as No. 406).
503	---do-----	-----do	46 26	53 02	Berg.
504	---do-----	-----do	46 29	52 42	Berg.
505	---do-----	-----do	46 31	53 04	Berg.
506	---do-----	-----do	46 32	52 53	Do.
507	---do-----	-----do	46 37	53 07	Berg (same as No. 497).
508	---do-----	-----do	46 42	53 01	Berg.
509	---do-----	-----do	46 43	52 50	Berg (same as No. 483).
510	---do-----	-----do	47 08	48 53	Berg (same as No. 471).
511	---do-----	USCGC Absecon	46 24	50 23	Several growlers.
512	---do-----	Ice Patrol plane	47 10 to 46 30	50 45 51 20	Eastern limits field ice.
513	---do-----	-----do	47 15 to 46 30	52 25 52 42	Western limits field ice.
514	---do-----	Canadian Department of Transport.	Country Island to 45 00 to 44 30 to 44 50 to 46 40 to St. Paul Island	 61 00 60 50 59 30 57 25	Field ice limits.
515	---do-----	-----do	Steamer track from Cabot Strait to Gaspé Passage.		Field ice, 80 percent cover.
516	Mar. 23	Cairngowan	45 12	52 36	Berg (same as No. 494).
517	Mar. 24	Ice Patrol plane	44 02	50 01	Berg (same as No. 499).
518	---do-----	TWA plane	44 50	51 05	Berg (same as No. 502).
519	---do-----	Ice Patrol plane	44 59	51 07	Berg (same as No. 518).
520	---do-----	-----do	45 00	51 54	Berg (same as No. 501).
521	---do-----	-----do	45 01	51 24	Berg (same as No. 500).
522	---do-----	-----do	45 06	51 25	Berg.
523	---do-----	-----do	45 08	52 10	Do.
524	---do-----	-----do	45 09	51 41	Berg (same as No. 498).
525	---do-----	-----do	45 12	52 34	Berg (same as No. 516).
526	---do-----	Cairngowan	45 12	52 36	Berg (same as No. 525).
527	---do-----	Ice Patrol plane	45 51	54 03	Berg (same as No. 495).
528	---do-----	-----do	46 08	52 51	Berg (same as No. 503).
529	---do-----	-----do	46 10	53 00	Berg (same as No. 504).
530	---do-----	-----do	46 12	53 05	Berg (same as No. 496).
531	---do-----	-----do	46 19	52 37	Berg.
532	---do-----	-----do	46 26	52 50	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
533	---do----	-----do----------	46 37	53 02	Berg (same as No. 508).
534	---do----	-----do----------	46 46	52 51	Berg (same as No. 509).
535	---do----	USNS Vela----------	46 48	52 50	Berg (same as No. 534).
536	---do----	-----do----------	46 31	53 04	Berg (same as No. 505).
537	---do----	-----do----------	46 32	53 05	Berg (same as No. 506).
538	---do----	-----do----------	46 34	53 06	Berg (same as No. 507).
539	---do----	-----do----------	46 38	52 59	Berg (same as No. 508).
540	---do----	MATS plane----------	49 50	54 50	Berg.
541	---do----	-----do----------	Between 50 53	52 21 and Fogo Island	Many small bergs.
542	---do----	-----do----------	51 30	51 10	2 bergs.
543	---do----	Newfoundland----------	44 31 to 44 21	62 13 to 62 12	Close pack.
544	---do----	Dartwood----------	20 miles east of St. John's		Heavy pack ice.
545	---do----	Ice Patrol plane----------	Line from 46 20 to 45 50 to 45 50 to 46 15	54 20 to 54 20 to 53 00 to 52 00	Southern and western field ice limits.
546	---do----	-----do----------	Cape St. Mary to Cape Ballard		15- to 20-mile wide shore lead.
547	Mar. 25	-----do----------	44 02	49 35	Small berg (same as No. 478).
548	---do----	-----do----------	44 03	49 57	Berg (same as No. 517).
549	---do----	-----do----------	44 47	49 22	Large berg.
550	---do----	-----do----------	44 52	50 50	Berg (same as No. 519).
551	---do----	-----do----------	45 16	51 42	Berg (same as No. 522).
552	---do----	-----do----------	45 18	51 41	Berg (same as No. 524).
553	---do----	-----do----------	46 08	52 42	Berg (same as No. 528).
554	---do----	-----do----------	46 13	52 49	Berg (same as No. 531).
555	---do----	-----do----------	46 15	52 54	Berg (same as No. 529).
556	---do----	-----do----------	46 47	52 54	Berg (same as No. 534).
557	---do----	-----do----------	47 10	48 58	Berg (same as No. 510).
558	---do----	-----do----------	47 28	49 18	Berg (same as No. 472).
559	---do----	-----do----------	45 16	51 39	Growler.
560	---do----	-----do----------	46 25	52 37	Do.
561	---do----	-----do----------	46 38	52 48	Do.
562	---do----	-----do----------	46 38	52 50	Do.
563	---do----	-----do----------	47 12	52 42	Do.
564	---do----	-----do----------	47 14	52 40	Do.
565	---do----	-----do----------	Cape Race to Gull Island-----		8-mile wide shore lead.
566	---do----	-----do----------	From 46 00 to 46 30	52 35 to 51 45	Southern limits observed field ice.
567	---do----	-----do----------	Line from 47 00 to 47 15 to 48 00	51 40 to 51 30 to 52 00	Eastern limits field ice.
568	Mar. 26	Borgholm----------	45 39	53 45	Berg (same as No. 527).
569	---do----	Nova Scotia----------	47 07	48 50	Berg (same as No. 557).
570	---do----	Ice Patrol plane----------	47 12	48 58	Berg (same as No. 569).
571	---do----	Newfoundland----------	St. John's Entrance and Harbor		Clearing of close pack ice.
572	---do----	Fort Hamilton----------	44 16 to 44 16	61 15 to 62 00	Partial southern limits field ice.
573	---do----	Newfoundland----------	47 47	51 54	Partial eastern limits field ice.
574	---do----	Borgholm----------	45 45 to 45 48	53 20 to 52 02	Field ice.
575	Mar. 27	Ice Patrol plane----------	44 30	49 33	Berg (same as No. 549).
576	---do----	-----do----------	44 30	50 14	Berg (same as No. 550).
577	---do----	-----do----------	45 30	51 53	Berg.
578	---do----	-----do----------	45 47	52 52	Berg (same as No. 553).
579	---do----	-----do----------	45 47	52 44	Berg (same as No. 554).
580	---do----	-----do----------	46 02	53 00	Berg (same as No. 555).
581	---do----	-----do----------	46 06	53 12	Berg (same as No. 530).
582	---do----	-----do----------	46 12	53 11	Berg (same as No. 536).
583	---do----	-----do----------	46 16	53 07	Berg (same as No. 532).
584	---do----	-----do----------	46 27	53 12	Berg (same as No. 537).
585	---do----	Tanafjord----------	45 32	51 50	Berg (same as No. 552).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° '	° '	
586	---do-----	Ice Patrol plane	43 42	49 20	Growler.
587	---do-----	-----do	43 53	49 27	Do.
588	---do-----	Nova Scotia	47 50	51 53	Heavy field ice, many open leads.
589	---do-----	Tanafjord	45 34	52 17	Field ice.
590	---do-----	Fort Avalon	45 00 to 45 56	59 43 to 59 24	Do.
591	---do-----	-----do	45 09 to 45 13	58 52 to 58 40	Do.
592	Mar. 28	Fort Avalon	46 25	53 22	Berg.
593	---do-----	Unidentified vessel	46 29	54 17	Do.
594	---do-----	Fort Avalon	46 32	52 50	Berg (same as No. 533).
595	---do-----	-----do	46 33	53 07	Berg (same as No. 539).
596	---do-----	-----do	46 41	53 03	Berg.
597	---do-----	-----do	46 49	52 50	Do.
598	---do-----	USN plane	46 48	52 53	Berg (same as No. 556).
599	---do-----	Unidentified vessel	45 50	54 40	Growler.
600	---do-----	Fort Avalon	46 32	53 10	Do.
601	---do-----	-----do	46 35	53 03	Do.
602	---do-----	-----do	48 05	52 45	Field ice.
603	---do-----	Canadian Department of Transport.	From 45 55 to 45 00 to 44 40 to 46 10 to 47 10	60 00 to 60 55 to 60 10 to 59 00 to 60 10	Field ice limits.
604	Mar. 29	Ryndam	42 56	49 23	Berg (same as No. 576).
605	---do-----	Ice Patrol plane	43 00	49 24	Berg (same as No. 604).
606	---do-----	Finn Trader	43 05	49 43	Berg (same as No. 605).
607	---do-----	Ice Patrol plane	44 52	53 06	Berg (same as No. 530).
608	---do-----	-----do	44 55	53 13	Berg (same as No. 577).
609	---do-----	-----do	45 03	53 43	Berg.
610	---do-----	-----do	45 05	53 40	Berg.
611	---do-----	-----do	46 10	53 03	Berg (same as No. 582).
612	---do-----	-----do	46 13	53 00	Berg (same as No. 583).
613	---do-----	-----do	46 25	53 23	Berg (same as No. 592).
614	---do-----	-----do	46 32	53 03	Berg (same as No. 601).
615	---do-----	-----do	46 41	53 03	Berg (same as No. 596).
616	---do-----	-----do	46 44	52 57	Berg (same as No. 598).
617	---do-----	-----do	47 14	52 38	Berg.
618	---do-----	USCGC Coos Bay	45 31	53 21	Berg (same as No. 578).
619	---do-----	-----do	45 34	53 32	Berg (same as No. 568).
620	---do-----	-----do	45 36	53 34	Berg (same as No. 579).
621	---do-----	Nova Scotia	46 20	53 35	Berg (same as No. 613).
622	---do-----	-----do	46 34	53 06	Berg (same as No. 614).
623	---do-----	-----do	46 41	53 02	Berg (same as No. 615).
624	---do-----	-----do	46 49	52 51	Berg (same as No. 616).
625	---do-----	Fuel Transporter	46 20	53 38	Berg (same as No. 621).
626	---do-----	USCGC Coos Bay	North of line from 45 15 to 45 21	52 32 to 52 50	Numerous ice floes.
627	---do-----	Nova Scotia	St. John's to Cape Race		Shore lead except for 2 miles from St. John's Harbor entrance.
628	---do-----	Ice Patrol plane	St. John's to Cape St. Mary		Shore lead except at Cape Spear.
629	Mar. 30	-----do	42 35	49 01	Berg (same as No. 575).
630	---do-----	-----do	43 56	51 46	Berg (same as No. 521).
631	---do-----	-----do	45 52	53 20	Berg (same as No. 580).
632	---do-----	-----do	46 03	53 15	Berg (same as No. 584).
633	---do-----	-----do	46 04	53 22	Berg (same as No. 581).
634	---do-----	-----do	46 07	53 17	Berg (same as No. 611).
635	---do-----	-----do	46 15	53 29	Berg (same as No. 612).
636	---do-----	-----do	46 42	52 58	Berg (same as No. 616).
637	---do-----	-----do	46 42	53 57	Berg.
638	---do-----	-----do	47 07	48 58	Berg (same as No. 569).
639	---do-----	-----do	47 16	49 09	Berg (same as No. 558).
640	---do-----	Stockholm	42 47	49 10	Radar target, possible berg (same as No. 604).
641	---do-----	L'Aventure	43 47	51 35	Berg (same as No. 630).
642	---do-----	-----do	44 53	52 48	Berg (same as No. 607).
643	---do-----	Manchester Mariner	44 33	52 43	Berg (same as No. 551).
644	---do-----	-----do	44 34	53 05	Berg (same as No. 523).
645	---do-----	-----do	44 44	53 14	Berg (same as No. 525).
646	---do-----	-----do	44 56	54 01	Berg (same as No. 618).
647	---do-----	-----do	44 53	53 52	Berg (same as No. 609).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
648	---do-----	-----do-------------------	45 01	53 46	Berg (same as No. 620).
649	---do-----	USCGC Acushnet----------	45 17	53 12	Berg (same as No. 619).
650	---do-----	-----do-------------------	45 27	53 16	Small berg and numerous growlers.
651	---do-----	USNS Gen. R. E. Callan----	46 33	53 07	Berg (same as No. 622).
652	---do-----	-----do-------------------	46 42	53 02	Berg (same as No. 623).
653	---do-----	-----do-------------------	46 49	52 50	Berg (same as No. 624).
654	---do-----	USNS J. E. Kelley---------	46 40	53 53	Berg (same as No. 637).
655	---do-----	Ice Patrol vessel-----------	44 00	51 38	Growler.
656	---do-----	-----do-------------------	44 04	51 41	Do.
657	---do-----	-----do-------------------	44 50	51 47	Do.
658	---do-----	-----do-------------------	47 07	48 58	Do.
659	---do-----	-----do-------------------	From Cape Race to 45 50 to 47 25 to 44 50	43 15 53 05 51 55	Western limits field ice.
660	---do-----	-----do-------------------	44 50	51 55	Southern limits field ice.
661	---do-----	-----do-------------------	North from Cape Race		Very narrow shore lead.
662	---do-----	USNS J. F. Valdez---------	44 30	60 22	Field ice.
663	---do-----	USN plane----------------	From 46 38 to Cape Spear	53 00	Very narrow shore lead.
664	Mar. 31	Ice Patrol plane-----------	41 53	49 00	Berg (same as No. 606).
665	---do-----	Ice Patrol vessel-----------	41 58	49 01	Berg (same as No. 664).
666	---do-----	Manchester Shipper--------	42 03	49 02	Berg (same as No. 665).
667	---do-----	-----do-------------------	42 18	48 47	Berg (same as No. 629).
668	---do-----	Ice Patrol plane-----------	42 10	48 50	Berg (same as No. 667).
669	---do-----	-----do-------------------	43 42	51 40	Berg (same as No. 641).
670	---do-----	-----do-------------------	46 03	53 17	Berg (same as Ng. 633).
671	---do-----	-----do-------------------	46 20	53 40	Berg (same as No. 536).
672	---do-----	-----do-------------------	46 22	52 48	Berg (same as No. 651).
673	---do-----	-----do-------------------	46 27	53 14	Berg (same as No. 652).
674	---do-----	-----do-------------------	46 43	53 50	Berg (same as No. 654).
675	---do-----	Mormacpine---------------	44 27	53 12	Berg (same as No. 644).
676	---do-----	-----do-------------------	44 51	53 51	Berg (same as No. 646).
677	---do-----	-----do-------------------	44 56	53 46	Berg (same as No. 648).
678	---do-----	-----do-------------------	45 03	53 52	Berg (same as No. 610).
679	---do-----	USCGC Caseo-------------	44 34	52 33	Berg.
680	---do-----	-----do-------------------	44 55	52 52	Berg (same as No. 642).
681	---do-----	-----do-------------------	45 01	53 38	Berg (same as No. 676).
682	---do-----	-----do-------------------	46 22	53 30	Berg (same as No. 625).
683	---do-----	Ice Patrol plane-----------	North of Cape Ballard---------		No shore lead.
684	---do-----	-----do-------------------	45 10 to 45 45	52 45 52 00	Southern limits field ice.
685	Apr. 1	Ice Patrol vessel-----------	41 58	49 00	Berg (same as No. 575).
686	---do-----	-----do-------------------	42 06	48 57	Berg (same as No. 575).
687	---do-----	Unidentified plane---------	48 20	53 10	Berg.
688	---do-----	-----do-------------------	48 21	53 05	Do.
689	---do-----	USNS Kirkpatrick----------	43 30	50 08	Berg (same as No. 547).
690	---do-----	-----do-------------------	43 30	51 43	Berg (same as No. 559).
691	---do-----	-----do-------------------	43 31	51 30	Berg (same as No. 548).
692	---do-----	-----do-------------------	44 33	51 41	Berg (same as No. 487).
693	---do-----	Stavangerfjord-------------	44 42	53 10	Berg (same as No. 645).
694	---do-----	-----do-------------------	44 43	53 02	Berg (same as No. 649).
695	---do-----	-----do-------------------	44 58	52 32	Berg (same as No. 680).
696	---do-----	Cairndhu-----------------	44 23	54 28	Berg (same as No. 470).
697	---do-----	Sinaloa-------------------	44 52	52 24	Berg (same as No. 695).
698	---do-----	Ice Patrol plane-----------	45 22	53 06	Berg (same as No. 608).
699	---do-----	-----do-------------------	45 25	53 18	Berg (same as No. 469).
700	---do-----	-----do-------------------	45 57	53 35	Berg (same as No. 670).
701	---do-----	-----do-------------------	46 33	53 05	Berg (same as No. 673).
702	---do-----	-----do-------------------	46 42	53 01	Berg (same as No. 623).
703	---do-----	-----do-------------------	46 47	52 55	Berg (same as No. 653).
704	---do-----	-----do-------------------	47 05	48 58	Berg (same as No. 638).
705	---do-----	-----do-------------------	47 17	49 06	Berg (same as No. 710).
706	---do-----	-----do-------------------	47 42	51 50	Berg.
707	---do-----	USNS J. E. Kelley---------	46 22	53 33	Berg (same as No. 671).
708	---do-----	-----do-------------------	46 33	53 06	Berg (same as No. 701).
709	---do-----	-----do-------------------	47 41	53 03	Berg (same as No. 702).
710	---do-----	Stavangerfjord-------------	47 12	49 03	Berg (same as No. 639).
711	---do-----	-----do-------------------	45 05	52 27	Field ice.
712	---do-----	Ice Patrol plane-----------	St. John's to Cape Race------		Shore lead; field ice 30 miles wide.
713	---do-----	-----do-------------------	From Cape Pine to 44 40 to 44 50	52 40 52 00	Field ice limits.
714	Apr. 2	Ice Patrol vessel-----------	41 38	48 09	Berg (same as No. 688).

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
715	...do.....	Ice Patrol plane	43	24	49	50	Berg (same as No. 689).
716	...do.....	.....do	43	32	51	33	Berg (same as No. 690).
717	...do.....	.....do	44	16	52	50	Berg (same as No. 694).
718	...do.....	.....do	44	19	53	00	Berg (same as No. 677).
719	...do.....	.....do	45	04	53	27	Berg (same as No. 698).
720	...do.....	.....do	45	07	53	38	Berg (same as No. 699).
721	...do.....	.....do	45	59	53	38	Berg (same as No. 700).
722	...do.....	USCGC Acushnet	43	32	51	41	Berg.
723	...do.....	.....do	44	24	52	43	Berg (same as No. 717).
724	...do.....	.....do	45	03	53	34	Berg (same as No. 719).
725	...do.....	Hydro	43	36	51	43	Berg (same as No. 716).
726	...do.....	Cairndhu	44	21	52	36	Berg (same as No. 695).
727	...do.....	.....do	44	22	52	54	Berg (same as No. 675).
728	...do.....	.....do	44	33	52	38	Berg (same as No. 697).
729	...do.....	USCGC Acushnet	44	54	53	14	Growler.
730	...do.....	Ice Patrol plane	From 44	50	52	50	Partial field ice limits.
			to 44	50	52	35	
			to 45	20	52	30	
731	...do.....	Canadian Department of Transport.	From 47	00	59	50	Field ice limits.
			to 45	10	59	00	
			to 44	30	60	40	
			to 44	40	61	20	
732	Apr. 3	Imperial Sarnia	46	30	53	25	Berg (same as No. 707).
733	...do.....	Fort Avalon	From Cape Race to Cape Spear				Shore lead, with tongues of ice into coast.
734	Apr. 5	Ice Patrol plane	44	38	52	19	Berg (same as No. 717).
735	...do.....	.....do	45	11	52	21	Berg (same as No. 719).
736	...do.....	.....do	45	18	52	48	Berg (same as No. 720).
737	...do.....	.....do	46	33	53	15	Berg (same as No. 732).
738	...do.....	.....do	46	40	52	50	Berg (same as No. 703).
739	...do.....	.....do	46	44	52	58	Berg (same as No. 702).
740	...do.....	.....do	Line from 47	40	52	30	Southern observed limits field ice.
			to 47	15	51	55	
			to 47	20	51	40	
741	...do.....	Italia	44	30	58	40	Field ice.
742	Apr. 6	Veslefjell	44	24	51	05	Berg.
743	...do.....	.....do	44	30	52	12	Berg (same as No. 734).
744	...do.....	Godafoss	44	43	52	48	Berg (same as No. 718).
745	...do.....	Italia	45	05	52	33	Berg (same as No. 736).
746	...do.....	Marengo	45	49	52	10	Berg.
747	...do.....	Ice Patrol plane	46	42	51	55	Berg (same as No. 672).
748	...do.....	.....do	47	10	48	49	Berg (same as No. 704).
749	...do.....	.....do	47	13	52	09	Berg.
750	...do.....	.....do	47	14	52	12	Do.
751	...do.....	.....do	47	16	52	21	Berg (same as No. 617).
752	...do.....	.....do	47	18	51	41	Berg (same as No. 706).
753	...do.....	.....do	47	22	49	10	Berg (same as No. 705).
754	...do.....	MATS plane	52	42	55	00	2 bergs.
755	...do.....	USCGC Rockaway	Between 45	12	58	00	Patches field ice.
			and 45	22	58	20	
756	...do.....	.....do	44	36	58	42	Field ice.
757	...do.....	Sun Adele	44	36	58	04	Do.
			to 45	04	58	12	
758	...do.....	Italia	45	47	51	13	Numerous bergs and field ice
			to 45	27	50	47	
759	...do.....	USS Opportune	45	12	58	54	Field ice.
760	...do.....	Ice Patrol plane	Line from 47	52	52	12	Western limits field ice.
			to 46	55	52	05	
			to 46	30	51	45	

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
761	...do.....	.....do	Line from 46 32 to 47 10 to 47 50 to 47 50 to 48 00	 51 05 50 20 50 00 48 40 48 40	Eastern limits field ice.
762	Apr. 7	USCGC Campbell	45 30	50 34	Broken patches field ice.
763	...do.....	USNS Bondia	Line from 46 16 to 46 00 to 45 32 to 45 40 to 45 29 to 45 34 to 45 44 to 45 59 to 46 18	 59 52 59 35 60 19 59 27 59 20 58 28 58 03 58 03 58 19	Field ice limits.
764	Apr. 8	Prins Willem IV	45 25	49 55	Berg.
765	...do.....	.....do	45 20	49 58	Growler.
766	...do.....	Elin Hope	45 25	58 00	Strings field ice.
767	...do.....	Veslefjell	47 04 and to south and southwest	59 28	Field ice.
768	...do.....	L'Aventure	From 46 07 to 46 07 to 46 05 to 46 05	 58 21 58 34 58 39 58 58	Field ice.
769	...do.....	Canadian Department of Transport.	Line from 47 20 to 46 50 to 45 10 to 45 40 to 46 05 to 46 10 to 46 15	 59 40 58 30 58 10 59 50 59 35 59 45 59 45	Field ice limits.
770	Apr. 9	Ice Patrol plane	44 44	51 24	Berg (same as No. 735).
771	...do.....	.....do	45 34	52 08	Berg (same as No. 746).
772	...do.....	.....do	45 46	50 42	Berg (same as No. 728).
773	...do.....	.....do	45 48	50 47	Berg (same as No. 696).
774	...do.....	.....do	45 51	51 12	Berg (same as No. 643).
775	...do.....	.....do	46 01	52 36	Berg (same as No. 738).
776	...do.....	.....do	46 03	52 13	Berg (same as No. 676).
777	...do.....	.....do	46 12	52 10	Berg (same as No. 721).
778	...do.....	.....do	46 37	52 52	Berg (same as No. 739).
779	...do.....	.....do	46 42	53 01	Berg (same as No. 740).
780	...do.....	Prins Willem IV	45 19	52 05	Berg (same as No. 771).
781	...do.....	Empress of Britain	45 42	50 10	Berg.
782	...do.....	Menastone	46 43	50 45	Berg (same as No. 752).
783	...do.....	.....do	47 08	49 02	Berg (same as No. 748).
784	...do.....	.....do	Between 47 48 and 47 36	 48 09 48 32	Pieces drift ice.
785	...do.....	.....do	From 46 16 to 46 41	 50 02 50 27	Field ice.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
786	---do-----	Ice Patrol plane	Line from 46 20 to 46 10 to 45 30 to 45 30	51 30 to 50 40 to 50 35 to 50 20	Partial southern limits field ice.
787	Apr. 10	Empress of Britain	45 42	51 51	Berg.
788	Apr. 11	Prins Frederic Willem	46 17	48 46	Berg (same as No. 773).
789	---do-----	USNS Bondia	46 40	52 55	Berg (same as No. 778).
790	---do-----	Newfoundland	West of 48 15	49 00	Pieces field ice.
791	---do-----	-----do	From 48 00 to 47 52	50 25 to 50 58	Loose pack with heavy floes.
792	---do-----	-----do	47 58	50 34	Strings heavy field ice.
793	Apr. 12	Ice Patrol plane	45 59	52 55	Berg (same as No. 775).
794	---do-----	Prins Frederic Willem	46 10	51 49	Berg (same as No. 777).
795	---do-----	Ravnefjell	46 10	52 55	Berg (same as No. 793).
796	---do-----	Nova Scotia	46 38	52 53	Berg (same as No. 789).
797	---do-----	Uruguay	44 32	49 15	Growler.
798	---do-----	Transpacific	14 miles north of Bird Rock		Heavy field ice.
799	---do-----	-----do	48 08 and northward	61 35	Large ice field.
800	---do-----	Beaverglen	Cape Ray and westward		Strings slob ice.
801	---do-----	Canadian Department of Transport.	Line from 47 25 to 45 50 to 45 55 to Cape Smoky	59 45 to 57 10 to 59 15	Field ice limits.
802	Apr. 13	Seven Seas	45 43	49 09	Berg (same as No. 764).
803	---do-----	-----do	46 02	52 15	Berg (same as No. 776).
804	---do-----	New York	46 02	52 15	Berg (same as No. 803).
805	---do-----	-----do	46 15	49 00	Berg (same as No. 788).
806	---do-----	USNS Mission San Gabriel	46 38	53 52	Berg (same as No. 674).
807	---do-----	Ice Patrol plane	46 57	51 36	Berg (same as No. 747).
808	---do-----	-----do	47 10	51 57	Berg (same as No. 749).
809	---do-----	Nova Scotia	47 47	50 35	Berg.
810	---do-----	Ice Patrol plane	46 55	52 03	Growler.
811	---do-----	Beaverlake	44 17	49 00	Do.
812	---do-----	Thorsgaard	45 54	57 31	Field ice.
813	---do-----	Sungran	45 45	57 36	Do.
814	---do-----	Nova Scotia	Between 48 13 and 48 02	49 43 and 50 11	Heavy patches of field ice.
815	---do-----	Prins Frederic Willem	47 31	59 36	Scattered field ice.
816	Apr. 14	MATS plane	46 05	52 40	Berg.
817	---do-----	-----do	46 35	51 10	Do.
818	---do-----	USCGC Mackinac	46 38	52 52	Do.
819	---do-----	Unidentified plane	46 52	51 45	Do.
820	---do-----	Nova Scotia	North of a line from 48 15 to 48 16 to 48 18 to 48 18	49 43 to 49 40 to 49 35 to 49 14	Heavy field ice.
821	---do-----	-----do	Between 48 34 and 48 06	48 21 and 48 14	Field ice.
822	---do-----	USCGC Mackinac	From 47 37 to 47 40 to 47 40 and northward	49 55 to 49 23 to 49 16	Field ice.
823	---do-----	-----do	North of lat. 47°30′ N. between longs. 48°30′ W. and 50°00′ W.		Field ice.
824	Apr. 15	Ice Patrol plane	46 24	48 05	Berg (same as No. 772).
825	---do-----	-----do	46 37	52 52	Berg (same as No. 796).
826	---do-----	-----do	46 4	53 02	Berg (same as No. 779).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
827	---do-----	Cairnavon	46 33	48 42	Berg (same as No. 805).
828	---do-----	Carl Julius	47 22	47 55	Berg.
829	---do-----	Cornwood	47 22	48 08	Scattered field ice.
830	Apr. 16	Beaverford	46 28	52 16	Berg (same as No. 795).
831	---do-----	-----do	46 28	47 47	Berg (same as No. 824).
832	---do-----	USNS J. E. Kelley	46 40	52 53	Berg (same as No. 825).
833	---do-----	Ice Patrol plane	46 26	47 54	Berg (same as No. 831).
834	---do-----	-----do	46 37	48 18	Berg (same as No. 827).
835	---do-----	-----do	46 54	51 55	Berg (same as No. 808).
836	---do-----	-----do	47 01	48 56	Berg (same as No. 783).
837	---do-----	-----do	47 05	50 52	Berg (same as No. 807).
838	---do-----	-----do	47 06	48 46	Berg (same as No. 783).
839	---do-----	-----do	47 17	48 57	Berg (same as No. 753).
840	---do-----	-----do	47 29	49 30	Berg.
841	---do-----	-----do	47 35	49 37	Berg (same as No. 809).
842	---do-----	-----do	47 01	48 00	Growler.
843	---do-----	Canadian Department of Transport.	Line from 47 20 to 47 10 to 46 10 to 45 10 to 46 20 to Cape Smoky	60 10 to 59 10 to 57 20 to 56 50 to 59 50	Field ice limits.
844	Apr. 17	Foldenfjord	46 08	47 55	Berg (same as No. 831).
845	---do-----	Empress of Scotland	46 54	47 00	Berg.
846	---do-----	Pierre L. D.	47 02	46 47	2 bergs.
847	---do-----	Christiane Schulte	46 58	46 56	Berg (same as No. 846).
848	---do-----	Ice Patrol plane	47 02	50 42	Berg (same as No. 837).
849	---do-----	-----do	47 07	48 49	Berg (same as No. 838).
850	---do-----	-----do	47 19	49 02	Berg (same as No. 839).
851	---do-----	-----do	47 24	48 04	Berg.
852	---do-----	-----do	47 33	49 38	Berg (same as No. 840).
853	---do-----	-----do	47 42	47 39	Berg.
854	---do-----	-----do	47 42	47 37	Do.
855	---do-----	-----do	47 43	49 42	Berg (same as No. 841).
856	---do-----	-----do	47 47	48 15	Berg.
857	---do-----	-----do	47 49	47 35	Do.
858	---do-----	-----do	47 57	47 34	Do.
859	---do-----	-----do	48 04	49 06	Berg.
860	---do-----	-----do	48 07	49 07	Do.
861	---do-----	-----do	48 10	49 04	Do.
862	---do-----	-----do	48 16	49 31	Do.
863	---do-----	-----do	48 17	50 28	Do.
864	---do-----	-----do	48 20	49 27	Do.
865	---do-----	-----do	48 22	48 30	Do.
866	---do-----	-----do	48 24	48 50	Do.
867	---do-----	USN plane	47 18	48 45	Berg (same as No. 850).
868	---do-----	-----do	47 34	49 34	Berg (same as No. 855).
869	---do-----	Unidentified plane	51 49	47 00	Berg.
870	---do-----	Empress of Scotland	46 51	47 59	Growler.
871	---do-----	-----do	47 05	47 15	Do.
872	---do-----	Goodwood	From 46 06 to 45 42	57 21 to 57 37	Field ice.
873	---do-----	John Lyras	46 24	57 43	Field ice.
874	---do-----	Ice Patrol plane	From 48 40 to 47 27 to 47 50 to 48 20	51 10 to 48 25 to 47 05 to 47 45	Southern limits field ice.
875	---do-----	Maria de Larrinaga	46 37	57 48	Ice floe.
876	---do-----	-----do	47 13 and to N and S	58 13	Field ice.
877	---do-----	Empress of Britain	From 47 49 to 47 47 to 47 39 to 47 42 to 47 37	60 32 to 60 20 to 60 07 to 59 51 to 59 50	Southern ice limits.

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
878	Apr. 18	Ice Patrol plane	46 02	47 48	Berg (same as No. 844).
879	---do	-----do	46 45	48 02	Berg (same as No. 834).
880	---do	-----do	46 55	46 32	Berg (same as No. 847).
881	---do	New York	46 38	52 53	Berg (same as No. 832).
882	---do	Falkanger	46 46	46 36	Berg (same as No. 816).
883	---do	-----do	47 05	48 45	Berg (same as No. 849).
884	---do	-----do	47 07	48 49	Berg (same as No. 836).
885	---do	USCGC Evergreen	46 46	48 19	Berg (same as No. 879).
886	---do	Unidentified plane	Vicinity of 50 38	53 23	5 bergs.
887	---do	Mormaepenn	46 51	47 33	Growler.
888	---do	Ice Patrol plane	46 37	48 17	Do.
889	---do	Cornelius Maersk	45 18	57 20	Field ice.
890	---do	L'Aventure	Line from 45 59 to 45 36 to 45 33 to 45 30	57 13 to 56 46 to 56 51 to 57 17	Southeast limits field ice.
891	---do	USNS J. E. Kelley	47 06	58 10	Field ice.
892	Apr. 19	Katina	45 23	48 06	Berg (same as No. 802).
893	---do	Tanafjord	45 44	48 00	Berg (same as No. 878).
894	---do	Ice Patrol plane	45 51	47 51	Berg (same as No. 892).
895	---do	-----do	46 22	52 32	Berg (same as No. 830).
896	---do	-----do	46 42	48 00	Berg (same as No. 879).
897	---do	-----do	46 48	46 00	Berg (same as No. 880).
898	---do	-----do	46 48	46 53	Berg (same as No. 845).
899	---do	-----do	46 52	46 04	Berg (same as No. 847).
900	---do	-----do	46 55	51 48	Berg (same as No. 835).
901	---do	-----do	47 14	50 25	Berg (same as No. 848).
902	---do	-----do	47 21	47 43	Berg (same as No. 851).
903	---do	-----do	47 23	47 05	Berg (same as No. 854).
904	---do	-----do	47 29	46 58	Berg (same as No. 853).
905	---do	-----do	47 36	46 48	Berg.
906	---do	Manchester Spinner	46 52	46 05	Berg (same as No. 896).
907	---do	-----do	46 56	46 02	Berg (same as No. 898).
908	---do	New York	45 56	51 40	Berg (same as No. 899).
909	---do	-----do	47 09	48 50	Berg (same as No. 883).
910	---do	-----do	47 14	48 37	Berg (same as No. 884).
911	---do	-----do	47 18	47 44	Berg (same as No. 901).
912	---do	-----do	47 29	47 13	Berg (same as No. 902).
913	---do	-----do	47 19	49 06	Berg (same as No. 867).
914	---do	-----do	East and north of 47 18	47 44	Field ice.
915	---do	USNS J. E. Kelley	Between Cape Anguille and Cape Ray and 10 miles northward.		Field ice.
916	---do	Empress of Britain	From 47 17 to 47 39	47 34 to 46 45	Southern limits field ice.
917	---do	Canadian Department of Transport.	Vicinity of Bird Rock		Heavy pieces field ice.
918	---do	Ice Patrol plane	From 47 12 to 47 39	47 10 to 46 38	Partial eastern field ice limits.
919	Apr. 20	Traviata	46 49	45 52	2 bergs (same as Nos. 906, 907).
920	---do	Carinthia	47 23 to 47 16	60 08 to 59 11	Northern limit field ice.
921	---do	-----do	47 20	59 44	String of field ice.
922	---do	Fort Hamilton	45 35	56 40	Field ice.
923	---do	USNS J. E. Kelley	47 31 to 47 32	59 39 to 59 27	Field ice.
924	---do	Homeric	45 52	58 39	Field ice.
925	---do	USCGC Half Moon	45 43	56 31	Field ice.
926	---do	Canadian Department of Transport.	45 30	56 40	Eastern limit field ice.
927	Apr. 21	Ivernia	47 49	46 46	Growler.
928	---do	Falkanger	47 32	51 37	Do.
929	---do	Carinthia	47 07	46 50	Field ice.
930	---do	Saxonia	From 47 14 to 47 02	46 27 to 46 35	Field ice.
931	---do	Empress of France	47 20	46 03	Field ice.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
932	---do-----	Christiana	From 47 23 to 47 21 to 47 23	59 12 to 59 29 to 60 00	Field ice.
933	Apr. 22	Rialto	46 10	47 18	Berg (same as No. 895).
934	---do-----	Empress of England	46 46	46 52	Berg (same as No. 901).
935	---do-----	-----do	46 32	47 19	Growler.
936	---do-----	USNS J. E. Kelley	Cape Ray to 47 40 and to NNW	59 35	Field ice.
937	Apr. 23	Ice Patrol plane	45 55	47 40	Berg (same as No. 933).
938	---do-----	-----do	46 20	52 32	Berg (same as No. 894).
939	---do-----	-----do	46 23	52 12	Berg (same as No. 899).
940	---do-----	-----do	46 40	46 24	Berg (same as No. 918).
941	---do-----	-----do	46 44	46 20	Berg (same as No. 902).
942	---do-----	-----do	46 44	46 26	Berg (same as No. 934).
943	---do-----	-----do	46 47	46 33	Berg (same as No. 857).
944	---do-----	-----do	46 48	46 40	Berg (same as No. 858).
945	---do-----	-----do	47 02	45 46	Berg (same as No. 919).
946	---do-----	-----do	47 04	45 43	Berg (same as No. 919).
947	---do-----	-----do	47 07	45 52	Berg (same as No. 903).
948	---do-----	-----do	47 07	48 43	Berg (same as No. 908).
949	---do-----	-----do	47 09	49 01	Berg (same as No. 909).
950	---do-----	-----do	47 12	46 07	Berg (same as No. 904).
951	---do-----	-----do	47 17	46 30	Berg (same as No. 856).
952	---do-----	-----do	47 17	49 03	Berg (same as No. 912).
953	---do-----	-----do	47 21	46 28	Berg.
954	---do-----	-----do	47 22	47 05	Do.
955	---do-----	-----do	47 22	47 12	Do.
956	---do-----	-----do	47 23	46 30	Do.
957	---do-----	-----do	47 23	47 08	Do.
958	---do-----	-----do	47 27	47 20	Do.
959	---do-----	-----do	47 31	46 53	Do.
960	---do-----	-----do	47 32	47 25	Do.
961	---do-----	-----do	47 33	47 08	Do.
962	---do-----	-----do	Within 20 mile radius of 47 00	46 20	Many growlers.
963	---do-----	-----do	Line from 47 35 to 47 20 to 47 15 to 47 25	49 00 to 48 00 to 47 00 to 46 20	Southern field ice limits.
964	---do-----	Stavangerfjord	46 40	46 40	2 bergs (same as Nos. 940, 942).
965	---do-----	Santa Maria	46 50	46 20	Berg (same as No. 941).
966	---do-----	-----do	47 05	45 53	Berg (same as No. 947).
967	---do-----	Fairtry	48 08	49 55	Berg.
968	---do-----	-----do	48 15	50 00	Do.
969	---do-----	-----do	48 18	50 10	Do.
970	---do-----	MATS plane	47 25	49 30	Berg (same as No. 852).
971	---do-----	Hermann Schulte	48 10	45 55	Berg.
972	---do-----	Norderholm	45 12	57 30	Southeast corner of field ice.
973	---do-----	-----do	45 35	58 25	Field ice.
974	---do-----	Empress of France	Cape Ray to 47 25	59 19	Strings field ice.
975	---do-----	USNS J. E. Kelley	Cape Ray to Cape Anguille and northward.		Belt of field ice 5 miles wide.
976	---do-----	Mormacstar	45 15 and northward	57 57	Field ice.
977	---do-----	-----do	45 07 and to north and west	57 02	Field ice.
978	---do-----	Canadian Department of Transport.	From 47 40 to 46 40 to 45 20 to 46 00	61 00 to 58 00 to 57 05 to 59 50	Field ice limits.
979	Apr. 24	Arosa Kulm	46 23	52 10	Berg (same as No. 939).
980	---do-----	-----do	46 49	51 36	Berg (same as No. 881).
981	---do-----	Assyria	46 27	46 10	Berg (same as No. 940).
982	---do-----	-----do	46 35	46 21	Growler.
983	---do-----	USCGC Mackinac	47 50	45 04	3 large growlers.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
984	---do-----	Hermann Schulte	From 47 50 to 47 20	45 53 to 45 53	Many growlers.
985	---do-----	-----do	47 10	47 00	Field ice.
986	---do-----	Newfoundland	45 46	57 32	Do.
987	---do-----	-----do	45 07	56 32	Do.
988	---do-----	Cornwall	South from Cape Ray 12 miles		Do.
989	---do-----	USNS J. F. Valdez	From 45 03 to 44 46	56 54 to 56 52	Light field ice.
990	Apr. 25	Ice Patrol plane	46 17	46 04	Berg (same as No. 981).
991	---do-----	-----do	46 19	47 17	Berg.
992	---do-----	-----do	46 20	46 22	Do.
993	---do-----	-----do	46 23	47 26	Do.
994	---do-----	-----do	46 26	47 17	Do.
995	---do-----	-----do	46 26	47 05	3 bergs.
996	---do-----	-----do	46 28	46 47	Do.
997	---do-----	-----do	46 29	46 25	Berg (same as No. 943).
998	---do-----	-----do	46 31	46 50	Berg.
999	---do-----	-----do	46 32	46 46	Do.
1000	---do-----	-----do	46 32	45 55	3 bergs (same as No. 964).
1001	---do-----	-----do	46 33	46 49	Berg.
1002	---do-----	-----do	46 35	47 28	Do.
1003	---do-----	-----do	46 36	47 01	Do.
1004	---do-----	-----do	46 37	46 50	Do.
1005	---do-----	-----do	46 37	46 47	Do.
1006	---do-----	-----do	46 40	46 44	Berg (same as No. 944).
1007	---do-----	-----do	46 45	45 42	2 bergs.
1008	---do-----	-----do	46 46	45 28	Berg.
1009	---do-----	-----do	46 46	46 47	Do.
1010	---do-----	-----do	46 49	47 36	Berg (same as No. 955).
1011	---do-----	-----do	46 50	48 16	Berg (same as No. 948).
1012	---do-----	-----do	46 53	47 37	Berg (same as No. 958).
1013	---do-----	-----do	46 54	47 33	Berg (same as No. 960).
1014	---do-----	-----do	46 54	46 36	Berg.
1015	---do-----	-----do	46 57	45 45	Berg (same as No. 966).
1016	---do-----	-----do	46 58	46 03	Berg.
1017	---do-----	-----do	46 58	51 39	Berg (same as No. 980).
1018	---do-----	-----do	46 59	45 00	Berg (same as No. 945).
1019	---do-----	-----do	47 00	45 57	Berg (same as No. 950).
1020	---do-----	-----do	47 01	47 20	Berg (same as No. 954).
1021	---do-----	-----do	47 03	46 11	Berg (same as No. 959).
1022	---do-----	-----do	47 04	47 48	Berg.
1023	---do-----	-----do	47 05	45 19	Berg (same as No. 946).
1024	---do-----	-----do	47 06	47 44	Berg.
1025	---do-----	-----do	47 07	47 18	Berg (same as No. 953).
1026	---do-----	-----do	47 08	46 19	Berg.
1027	---do-----	-----do	47 08	47 47	Do.
1028	---do-----	-----do	47 09	47 29	Do.
1029	---do-----	-----do	47 12	47 23	Berg (same as No. 957).
1030	---do-----	-----do	47 13	47 23	Berg.
1031	---do-----	-----do	47 15	47 40	Do.
1032	---do-----	-----do	47 15	46 19	Berg (same as No. 951).
1033	---do-----	-----do	47 17	45 55	Berg.
1034	---do-----	-----do	47 20	46 27	Berg (same as No. 956).
1035	---do-----	-----do	47 24	47 22	Berg (same as No. 961).
1036	---do-----	-----do	Line from 47 05 to 46 15 to 46 25 to 47 10	48 05 to 47 30 to 46 45 to 45 25	Southern limits field ice.
1037	---do-----	Empress of Scotland	45 47	52 59	Berg (same as No. 938).
1038	---do-----	-----do	From 47 34 to 47 28	59 53 to 59 37	Field ice.
1039	---do-----	Orpheus	46 01	46 15	Berg (same as No. 990).
1040	---do-----	Italia	46 24	45 24	2 bergs.
1041	---do-----	-----do	46 45	44 30	Berg (same as No. 855).
1042	---do-----	Manchester Merchant	46 32	45 58	Berg (same as No. 1000).
1043	---do-----	-----do	46 35	45 56	Berg (same as No. 1000).
1044	---do-----	-----do	46 38	45 59	Berg (same as No. 1000).
1045	---do-----	-----do	46 42	45 42	Berg (same as No. 1007).
1046	---do-----	Hermann Schulte	46 40	52 14	Berg (same as No. 979).
1047	---do-----	USCGC Mackinac	46 44	47 29	Berg (same as No. 1010).
1048	---do-----	-----do	46 54	47 27	Berg (same as No. 1012).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1049	do	do	46 58	47 06	Berg (same as No. 1020).
1050	do	do	46 59	47 26	Berg (same as No. 1013).
1051	do	do	46 54	47 00	Field ice.
1052	do	do	46 52	47 19	Do.
1053	do	USCGC Mendota	44 50	57 30	Do.
1054	do	Labrador	47 45	46 45	Do.
1055	do	do	47 52	47 45	Do.
1056	Apr. 26	Homeric	45 38	53 20	Berg (same as No. 1037).
1057	do	do	8 miles ENE Bird Rock		Field ice.
1058	do	do	19 miles NE St. Paul Island		Do.
1059	do	USCGC Mackinac	45 59	48 08	Berg (same as No. 993).
1060	do	do	From 46 30 to 45 50 to 45 28	48 18 to 48 24 to 48 26	Field ice.
1061	do	Empress of Scotland	46 07	47 15	Berg (same as No. 995).
1062	do	do	46 11	47 12	Berg (same as No. 995).
1063	do	do	46 14	47 31	Berg (same as No. 991).
1064	do	do	From 46 09 to 46 05	47 50 to 48 18	Heavy field ice.
1065	do	Empress of Scotland	From 46 05 to 46 03	48 18 to 48 03	Field ice.
1066	do	L'Aventure	From 47 32 to 47 30	52 16 to 52 19	Patches field ice.
1067	do	Tongariro	45 05	57 20	Field ice.
1068	do	Manchester Merchant	From 45 55 to 45 28	47 29 to 47 22	Field ice and growlers.
1069	do	Arosa Star	46 45	47 13	Field ice.
1070	do	USS Otterstetter	From 45 20 to 45 55	48 45 to 48 30	Western limits field ice.
1071	Apr. 27	Ice Patrol plane	45 35	48 30	Berg (same as No. 1059).
1072	do	do	45 41	46 54	Berg (same as No. 1039).
1073	do	do	45 55	49 04	Berg (same as No. 1002).
1074	do	do	46 01	47 02	Berg (same as No. 1062).
1075	do	do	46 05	46 53	Berg (same as No. 998).
1076	do	do	46 07	47 05	Berg (same as No. 1063).
1077	do	do	46 08	47 30	Berg (same as No. 1061).
1078	do	do	46 09	46 54	Berg (same as No. 999).
1079	do	do	46 10	47 45	2 bergs (same as Nos. 1003, 1047).
1080	do	do	46 16	46 46	Berg (same as No. 996).
1081	do	do	46 18	46 47	Berg (same as No. 1001).
1082	do	do	46 18	46 33	Berg (same as No. 1004).
1083	do	do	46 28	47 14	Berg (same as No. 1048).
1084	do	do	46 28	47 09	Berg (same as No. 1050).
1085	do	do	46 33	46 49	Berg (same as No. 1005).
1086	do	do	46 34	47 04	Berg (same as No. 1006).
1087	do	do	46 39	48 18	3 bergs (same as Nos. 1011, 1027, 1024).
1088	do	do	Line from 47 10 to 47 10 to 46 10 to 45 30 to 45 20 to 46 55	52 40 to 50 20 to 48 55 to 49 15 to 48 50 to 47 05	Southern limits field ice.
1089	do	Redcar	45 25	49 15	Small berg and field ice (same as No. 994).
1090	do	Unidentified vessel	45 48	48 54	3 bergs (same as Nos. 994, 1062, 1073).
1091	do	do	45 48	48 54	Field ice.
1092	do	Empress of Scotland	46 03	46 31	Berg (same as No. 992).
1093	do	do	46 10	46 30	Berg (same as No. 997).
1094	do	Newfoundland	46 05	48 52	Field ice and growlers.

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
1095	---do-----	-----do------------------	From 47 28 to 47 16	51 55 to 51 23	Field ice.
1096	---do-----	-----do------------------	47 42	52 04	Do.
1097	---do-----	Arosa Star---------------	45 52	48 17	Do.
1098	---do-----	-----do------------------	45 55	48 25	Do.
1099	---do-----	-----do------------------	47 44	46 15	Pieces field ice.
1100	---do-----	Lismoria-----------------	From 47 56	60 55 ENE to horizon	Field ice.
1101	---do-----	USNS J. F. Valdez---------	47 10 and to northward	52 33	Scattered field ice.
1102	---do-----	Manchester Pioneer--------	From 45 22 to 45 22	48 35 to 48 48	Field ice.
1103	---do-----	Haida--------------------	44 56	58 14	Field ice.
1104	---do-----	Ripon--------------------	45 58 and to SW and SE	48 22	Field ice.
1105	Apr. 28	Avonwood----------------	45 11	49 25	Berg (same as No. 1089).
1106	---do-----	-----do------------------	45 15	49 04	Berg (same as No. 1071).
1107	---do-----	-----do------------------	45 15	49 30	Scattered field ice and growlers.
1108	---do-----	Newfoundland-------------	45 19	49 24	Berg (same as No. 1105).
1109	---do-----	-----do------------------	45 18	49 22	Field ice.
1110	---do-----	-----do------------------	45 31 and to northward	49 15	Do.
1111	---do-----	Beaverlake---------------	45 29	50 31	Berg (same as No. 1022).
1112	---do-----	-----do------------------	45 30	50 28	Berg (same as No. 1031).
1113	---do-----	Cairngowan---------------	45 32	48 42	Berg (same as No. 1079).
1114	---do-----	-----do------------------	45 34	48 45	Berg (same as No. 1079).
1115	---do-----	-----do------------------	45 38	48 48	Berg (same as No. 1009).
1116	---do-----	-----do------------------	45 39	48 45	Berg (same as No. 1090).
1117	---do-----	-----do------------------	45 58	48 42	Berg (same as No. 1077).
1118	---do-----	-----do------------------	46 00	46 42	2 bergs (same as No. 1040).
1119	---do-----	-----do------------------	46 02	46 20	Berg (same as No. 1043).
1120	---do-----	-----do------------------	46 09	46 32	Berg (same as No. 1007).
1121	---do-----	-----do------------------	46 12	46 33	Berg (same as No. 1042).
1122	---do-----	-----do------------------	46 14	46 28	Berg (same as No. 1044).
1123	---do-----	Unidentified vessel--------	45 36	48 48	Field ice.
1124	---do-----	Saxonia------------------	From 47 48 to 47 40	60 40 to 60 35	Do.
1125	---do-----	-----do------------------	From 47 52 to 47 17	60 52 to 59 52	Do.
1126	---do-----	USNS J. E. Kelley---------	From Cape Anguille extending 25 miles SW.		Field ice.
1127	---do-----	John Lyras---------------	47 46	60 25	Do.
1128	---do-----	-----do------------------	47 45	59 48	Do.
1129	Apr. 29	Lismoria-----------------	44 42	49 49	Berg (same as No. 1106).
1130	---do-----	Unidentified vessel--------	45 45	48 23	Berg (same as No. 1116).
1131	---do-----	USCGC Evergreen---------	47 31	52 36	Berg.
1132	---do-----	-----do------------------	St. Johns to 47 18	52 42	Scattered to heavy field ice.
1133	---do-----	Beaverlake---------------	From 45 11 to 45 09	49 50 to 49 22	Scattered field ice and growlers.
1134	---do-----	Empress of France---------	45 54	49 43	Numerous growlers and field ice.
1135	---do-----	-----do------------------	From 46 00 to 46 37	49 30 to 48 55	Scattered field ice.
1136	---do-----	Axel Gorthon-------------	St. John's to Cape Ballard 5 miles off shore.		Field ice.
1137	---do-----	Imperial Toronto----------	From 45 25 to 45 14 to 45 08 to 45 33	59 45 to 59 27 to 59 00 to 58 48	Field ice boundary.
1138	---do-----	Maria de Larrinaga--------	47 23	60 10	Field ice.
1139	---do-----	-----do------------------	10 miles north Bird Rock to 5 miles north St. Paul Island.		Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1140	---do-----	Canadian Department of Transport.	From Cape George to 46 50 to 47 10 to 46 50 to 45 40 to 45 15 to St. Esprit Island	61 50 to 60 15 to 59 30 to 58 40 to 60 30	Field ice limits.
1141	---do-----	-----do-----	From Cape Anguille to 48 00 to 49 10 and westward to coast	60 45 to 59 15	Do.
1142	Apr. 30	USAF plane	45 25	50 00	Berg (same as No. 1073).
1143	---do-----	Unidentified vessel	45 42	48 48	Berg (same as No. 1117).
1144	---do-----	Beaverford	46 24	52 11	Berg (same as No. 1046).
1145	---do-----	-----do-----	47 00	59 46	Southeast edge of ice field.
1146	---do-----	USCGC Evergreen	47 03	50 34	Southern limit ice field.
1147	---do-----	Empress of France	46 33	48 47	Scattered field ice.
1148	---do-----	Italia	45 16	58 30	Field ice.
1149	---do-----	Marengo	45 33	49 02	Berg (same as No. 1113).
1150	---do-----	-----do-----	45 36	49 07	Berg (same as No. 1114).
1151	---do-----	-----do-----	45 40	48 40	Berg (same as No. 1130).
1152	---do-----	-----do-----	45 42	48 58	Berg (same as No. 1130).
1153	---do-----	Unidentified vessel	45 42	48 48	Berg (same as No. 1152).
1154	---do-----	Beaverford	46 10 to 45 50 to 45 51	49 50 to 48 50 to 48 35	Numerous growlers.
1155	May 1	-----do-----	46 32 to 46 49	53 18 to 52 53	Growlers and field ice.
1156	---do-----	Nova Scotia	46 32	53 18	Field ice.
1157	---do-----	USNS J. E. Kelley	Cape Anguille to 47 40 and to westward	59 30	Southern limits field ice.
1158	May 2	USS Otterstetter	45 34	48 51	Berg (same as No. 1115).
1159	---do-----	USCGC Campbell	45 38	50 40	Berg (same as No. 1112).
1160	---do-----	Beaverford	46 09	48 22	Berg (same as No. 1087).
1161	---do-----	Nova Scotia	47 18	52 32	Berg.
1162	---do-----	-----do-----	46 31	53 38	Growler.
1163	---do-----	-----do-----	46 46 to 47 20	52 54 to 52 37	Scattered field ice and growlers.
1164	---do-----	-----do-----	47 31	52 33	Field ice.
1165	---do-----	Empress of England	45 34	50 40	Do.
1166	---do-----	-----do-----	Between St. Paul Island and Cape Ray.		Scattered field ice.
1167	May 3	Ice Patrol plane	44 46	50 02	Berg (same as No. 1129).
1168	---do-----	-----do-----	45 36	48 50	Berg (same as No. 1158).
1169	---do-----	-----do-----	45 43	50 26	Berg (same as No. 1159).
1170	---do-----	-----do-----	46 10	50 41	Berg (same as No. 952).
1171	---do-----	Unidentified vessel	45 42	48 36	Berg.
1172	---do-----	-----do-----	46 33	50 58	Berg (same as No. 1029).
1173	---do-----	-----do-----	46 33	51 08	Berg (same as No. 1025).
1174	---do-----	-----do-----	46 34	50 46	Berg (same as No. 1035).
1175	---do-----	-----do-----	46 35	50 36	Berg (same as No. 1030).
1176	---do-----	-----do-----	46 36	50 14	Berg (same as No. 1020).
1177	---do-----	-----do-----	46 36	49 40	Berg (same as No. 949).
1178	---do-----	-----do-----	46 37	50 28	Berg (same as No. 1028).
1179	---do-----	-----do-----	5 miles off Motion Head		Berg (same as No. 1131).
1180	---do-----	USNS J. F. Valdez	47 27	52 38	Berg, patches field ice (same as No. 1179).
1181	---do-----	Obuasi	46 42	59 23	Growlers, scattered field ice.
1182	May 4	Ice Patrol plane	45 36	48 43	Berg (same as No. 1168).
1183	---do-----	-----do-----	45 46	48 25	Berg (same as No. 1032).
1184	---do-----	-----do-----	46 10	49 51	Berg (same as No. 1087).
1185	---do-----	-----do-----	46 13	48 30	Berg (same as No. 1160).
1186	---do-----	-----do-----	46 16	48 40	Berg (same as No. 1087).
1187	---do-----	-----do-----	46 30	49 42	Berg (same as No. 1177).
1188	---do-----	-----do-----	46 34	49 53	Berg (same as No. 1176).
1189	---do-----	-----do-----	46 36	50 28	Berg (same as No. 1178).
1190	---do-----	-----do-----	46 37	49 57	Berg (same as No. 970).
1191	---do-----	-----do-----	46 37	50 02	Berg (same as No. 1170).

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
1192	---do----	-----do	46 43	50 37	Berg (same as No. 1175).
1193	---do----	-----do	46 46	50 27	Berg (same as No. 1173).
1194	---do----	-----do	46 47	50 47	Berg (same as No. 1174).
1195	---do----	-----do	46 59	48 21	Berg (same as No. 1021).
1196	---do----	-----do	46 59	51 03	Berg (same as No. 1172).
1197	---do----	-----do	47 17	52 34	Berg.
1198	---do----	-----do	47 26	52 37	Berg (same as No. 1180).
1199	---do----	-----do	From Ferryland to Cape Spear		Shore lead, 1–5 miles wide.
1200	---do----	Stavangerfjord	46 12	48 31	Berg (same as No. 1185).
1201	---do----	L'Aventure	47 00	51 35	Berg (same as No. 1050).
1202	---do----	Sommen	47 50	50 55	Berg (same as No. 1049).
1203	---do----	-----do	47 58	50 55	Berg.
1204	---do----	Saudades	48 08	51 35	Berg.
1205	---do----	Mormacstar	47 45 to 47 30	60 25 to 60 00	Field ice.
1206	---do----	Haida	47 32	60 11	Heavy pieces field ice.
1207	---do----	Beaverdell	47 34 to 47 32	60 15 to 60 04	Field ice.
1208	---do----	Nova Scotia	44 40 to 44 39	60 09 to 60 40	Field ice, moderately packed.
1209	---do----	Canadian Department of Transport.	From 47 10 to 45 20 to 44 40 to Cape Breton	60 15 to 59 10 to 60 50	Field ice limits.
1210	May 5	Cleopatra	45 25	48 35	Berg (same as No. 1182).
1211	---do----	Unidentified vessel	45 42	48 48	Berg (same as No. 1183).
1212	---do----	Asia	45 40	48 56	Berg (same as No. 1210).
1213	---do----	USCGC Bibb	46 13	48 28	Berg (same as No. 1185).
1214	---do----	-----do	46 17	48 31	Berg (same as No. 1186).
1215	---do----	Bergensfjord	46 25	48 22	Berg (same as No. 1214).
1216	---do----	Kronos	46 30	52 30	Berg (same as No. 1144).
1217	---do----	-----do	46 50	50 37	Berg (same as No. 1194).
1218	---do----	-----do	46 52	51 38	Berg (same as No. 1201).
1219	---do----	Unidentified plane	48 25	52 30	Berg.
1220	---do----	Unidentified vessel	45 15 and eastward	60 50	Field ice.
1221	---do----	-----do	45 43	48 54	Berg (same as No. 1212).
1222	---do----	-----do	46 01	48 15	Berg (same as No. 1213).
1223	---do----	-----do	46 16	48 16	Berg (same as No. 1185).
1224	---do----	-----do	46 25	48 21	Berg (same as No. 1213).
1225	---do----	-----do	46 42	49 48	Berg (same as No. 1188).
1226	---do----	-----do	46 44	48 25	Berg (same as No. 1195).
1227	---do----	-----do	46 46	50 00	Berg (same as No. 1190).
1228	---do----	-----do	46 47	50 29	Berg (same as No. 1193).
1229	May 6	Ice Patrol plane	46 50	49 35	Berg (same as No. 1191).
1230	---do----	-----do	46 50	49 17	Berg.
1231	---do----	-----do	46 53	52 21	Berg (same as No. 1197).
1232	---do----	-----do	46 55	52 19	Berg.
1233	---do----	-----do	46 56	49 41	Do.
1234	---do----	-----do	46 57	51 56	Berg (same as No. 1218).
1235	---do----	-----do	46 58	52 47	Berg.
1236	---do----	-----do	46 59	49 43	Do.
1237	---do----	-----do	46 59	48 29	Do.
1238	---do----	-----do	47 00	50 03	Berg (same as No. 1217).
1239	---do----	-----do	47 01	49 50	Berg (same as No. 1192).
1240	---do----	-----do	47 02	52 00	Berg.
1241	---do----	-----do	47 02	49 28	Do.
1242	---do----	-----do	47 04	49 39	Do.
1243	---do----	-----do	47 07	49 04	Do.
1244	---do----	-----do	47 09	48 31	Do.
1245	---do----	-----do	47 09	49 04	Do.
1246	---do----	-----do	47 11	48 29	Do.
1247	---do----	-----do	47 13	50 45	Berg (same as No. 1196).
1248	---do----	-----do	47 15	50 32	Berg.
1249	---do----	-----do	47 16	49 19	Do.
1250	---do----	-----do	47 18	48 47	Do.
1251	---do----	-----do	47 19	49 21	Do.
1252	---do----	-----do	47 19	52 39	Berg (same as No. 1198).
1253	---do----	-----do	47 21	50 01	Berg.
1254	---do----	-----do	47 22	49 34	Do.
1255	---do----	-----do	47 23	48 47	Do.
1256	---do----	-----do	47 23	51 10	Do.
1257	---do----	-----do	47 25	49 29	Do.
1258	---do----	-----do	47 26	50 25	Do.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
1259	---do----	-----do----------	47	26	51	04	Berg (same as No. 1202).
1260	---do----	-----do----------	47	26	49	04	Berg.
1261	---do----	-----do----------	47	27	49	38	Do.
1262	---do----	-----do----------	47	29	51	18	Berg (same as No. 1203).
1263	---do----	-----do----------	47	29	49	18	Berg.
1264	---do----	-----do----------	47	29	49	05	Berg.
1265	---do----	-----do----------	47	30	51	19	Do.
1266	---do----	-----do----------	47	30	51	09	Do.
1267	---do----	-----do----------	47	30	49	31	Do.
1268	---do----	-----do----------	47	31	49	08	Do.
1269	---do----	-----do----------	47	31	48	20	Do.
1270	---do----	-----do----------	47	32	50	16	Do.
1271	---do----	-----do----------	47	33	51	20	Do.
1272	---do----	-----do----------	47	33	49	14	Do.
1273	---do----	-----do----------	47	33	48	20	Do.
1274	---do----	-----do----------	47	34	50	11	Do.
1275	---do----	-----do----------	47	35	51	18	Do.
1276	---do----	-----do----------	47	35	50	20	Do.
1277	---do----	-----do----------	47	36	50	01	Do.
1278	---do----	-----do----------	47	38	51	11	Do.
1279	---do----	-----do----------	47	39	51	03	Do.
1280	---do----	-----do----------	47	40	50	30	Do.
1281	---do----	-----do----------	47	40	48	50	Do.
1282	---do----	-----do----------	47	41	49	05	Do.
1283	---do----	-----do----------	47	41	49	02	Do.
1284	---do----	-----do----------	47	41	48	52	Do.
1285	---do----	-----do----------	47	41	52	04	Do.
1286	---do----	-----do----------	47	41	52	38	Do.
1287	---do----	-----do----------	47	41	52	41	Do.
1288	---do----	-----do----------	47	42	49	06	Do.
1289	---do----	-----do----------	47	42	50	50	Do.
1290	---do----	-----do----------	47	44	49	15	Do.
1291	---do----	-----do----------	47	44	49	08	Do.
1292	---do----	-----do----------	47	46	52	07	Do.
1293	---do----	-----do----------	47	49	52	08	Do.
1294	---do----	-----do----------	47	50	52	05	Do.
1295	---do----	-----do----------	47	51	49	00	Do.
1296	---do----	-----do----------	47	53	52	00	Do.
1297	---do----	-----do----------	47	53	50	05	Do.
1298	---do----	-----do----------	47	53	49	18	Do.
1299	---do----	-----do----------	47	55	48	48	Do.
1300	---do----	-----do----------	47	55	50	28	Do.
1301	---do----	-----do----------	47	56	49	40	Do.
1302	---do----	-----do----------	47	58	50	10	Do.
1303	---do----	-----do----------	48	00	50	08	Do.
1304	---do----	-----do----------	48	01	50	11	Do.
1305	---do----	-----do----------	48	01	51	10	Do.
1306	---do----	-----do----------	48	02	50	49	Do.
1307	---do----	-----do----------	48	02	50	20	Do.
1308	---do----	-----do----------	48	03	51	32	Do.
1309	---do----	Calgaria----------	45	35	49	04	Berg (same as No. 1167).
1310	---do----	-----do----------	45	38	48	57	Berg (same as No. 1221).
1311	---do----	-----do----------	46	00	48	19	Berg (same as No. 1222).
1312	---do----	Unidentified vessel------	45	40	48	52	Berg (same as No. 1310).
1313	---do----	-----do----------	47	20	49	10	Berg (same as No. 1051).
1314	---do----	Blairspey----------	45	55	48	11	Berg (same as No. 1311).
1315	---do----	Harvey Smudd--------	45	59	48	13	Berg (same as No. 1314).
1316	---do----	-----do----------	46	17	48	12	Berg (same as No. 1223).
1317	---do----	-----do----------	46	19	48	18	Berg (same as No. 1213).
1318	---do----	Carinthia----------	46	07	50	10	Berg (same as No. 1184).
1319	---do----	-----do----------	46	40	48	38	Berg (same as No. 1226).
1320	---do----	-----do----------	46	14	49	31	Growler.
1321	---do----	-----do----------	46	37	48	35	Do.
1322	---do----	Wallsend----------	46	18	48	15	Berg (same as No. 1186).
1323	---do----	USN plane----------	46	41	49	52	3 bergs (same as Nos. 1225, 1227, 1229).
1324	---do----	Unidentified plane------	46	50	51	52	2 bergs (same as No. 1218).
1325	---do----	PAA plane----------	47	30	49	00	Several bergs (same as No. 1313).
1326	---do----	SAS plane----------	49	40	50	40	Berg.
1327	---do----	USNS Bondia--------	44	45	61	00	Field ice.
1328	---do----	Unidentified vessel------	47	12	59	49	Patches field ice.
			and to northward				
1329	May 7	Ice Patrol plane------	46	02	51	13	Berg.
1330	---do----	-----do----------	46	03	50	08	Berg (same as No. 1318).
1331	---do----	-----do----------	46	33	53	03	Berg.
1332	---do----	-----do----------	46	34	52	59	Berg (same as No. 1216).
1333	---do----	-----do----------	46	48	52	50	Berg (same as No. 1235).
1334	---do----	-----do----------	46	53	51	40	Berg (same as No. 1234).
1335	---do----	-----do----------	46	53	52	06	Berg (same as No. 1240).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1336	---do-----	-----do	From 46 30 to northward 5-15 miles offshore	52 50	Scattered field ice.
1337	---do-----	Cairnavon	46 05	50 13	Berg (same as No. 1330).
1338	---do-----	Mormacfir	47 00	50 22	Berg (same as No. 1248).
1339	---do-----	-----do	47 08	49 42	Berg (same as No. 1239).
1340	---do-----	-----do	47 09	49 50	Berg (same as No. 1238).
1341	---do-----	-----do	47 10	49 38	Berg (same as No. 1242).
1342	---do-----	-----do	47 24	49 00	Berg (same as No. 1260).
1343	---do-----	Corinaldo	47 02	47 36	Berg.
1344	---do-----	USN plane	47 10	45 11	Do.
1345	---do-----	Mormacfir	47 59	47 14	Numerous growlers.
1346	---do-----	Bergensfjord	44 22	60 33	Southern limit field ice.
1347	May 8	Ice Patrol plane	45 38	49 01	Berg (same as No. 1221).
1348	---do-----	-----do	45 46	48 42	Berg (same as No. 1222).
1349	---do-----	-----do	46 05	50 26	Berg (same as No. 1337).
1350	---do-----	-----do	46 13	51 12	Berg (same as No. 1329).
1351	---do-----	-----do	46 18	48 21	Berg (same as No. 1223).
1352	---do-----	-----do	46 41	48 28	Berg (same as No. 1226).
1353	---do-----	-----do	46 43	47 28	Berg (same as No. 1343).
1354	---do-----	-----do	46 46	52 18	Berg (same as No. 1335).
1355	---do-----	-----do	46 50	52 29	Berg (same as No. 1231).
1356	---do-----	-----do	46 56	52 11	Berg (same as No. 1232).
1357	---do-----	-----do	47 12	52 38	Berg (same as No. 1252).
1358	---do-----	Port Dunedin	45 42	48 58	Berg (same as No. 1347).
1359	---do-----	Cairnavon	45 53	48 20	Berg (same as No. 1348).
1360	---do-----	Empress of Scotland	46 18	48 09	Berg (same as No. 1351).
1361	---do-----	Empress of Scotland	46 22	48 13	Berg and growlers (same as No. 1224).
1362	---do-----	Unidentified vessel	46 21	48 14	Berg (same as No. 1361).
1363	---do-----	-----do	46 21	48 18	Berg (same as No. 1360).
1364	---do-----	USCGC Mackinac	46 30	49 32	Berg.
1365	---do-----	-----do	46 47	47 39	Berg (same as No. 1343).
1366	---do-----	Unidentified plane	46 54	51 44	Berg (same as No. 1334).
1367	---do-----	Stanpark	47 20	49 10	Berg.
1368	---do-----	Hydro	49 40	50 40	Berg.
1369	---do-----	Unidentified vessel	46 23	58 46	Scattered field ice.
1370	---do-----	Beaverlodge	47 21	59 57	Field ice.
1371	---do-----	USN plane	From 45 45 to 46 05 to 46 25 to 46 35 to 46 50 to 46 25 to 46 50 to St. Paul Island to northwest	60 10 / 58 48 / 58 48 / 59 00 / 59 30 / 60 15 / 60 05	Field ice limits.
1372	---do-----	Canadian Department of Transport.	From 47 05 to 47 10 to 46 35 to 46 10 to 45 20	60 40 / 60 10 / 60 10 / 58 30 / 59 20	Do.
1373	---do-----	-----do	From Cape Ray to 47 40 to 48 30 to Bay of Islands	60 00 / 59 25	Field ice limits.
1374	May 9	Unidentified vessel	45 38	48 49	Berg (same as No. 1347).
1375	---do-----	Manchester Explorer	45 47	48 38	Berg (same as No. 1348).
1376	---do-----	USCGC Evergreen	46 02	48 28	Berg (same as No. 1351).
1377	---do-----	Baskerville	46 08	48 24	Berg (same as No. 1376).
1378	---do-----	-----do	46 30	47 22	Berg (same as No. 1353).
1379	---do-----	USCGC Mackinac	46 31	52 22	Berg (same as No. 1354).
1380	---do-----	-----do	46 38	52 41	Berg (same as No. 1333).

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
1381	---do-----	-----do-----	46 40	52 41	Berg (same as No. 1355).
1382	---do-----	-----do-----	46 50	52 51	Berg.
1383	---do-----	Empress of Britain	46 36	52 23	Berg (same as No. 1379).
1384	---do-----	-----do-----	46 43	52 49	Berg (same as No. 1381).
1385	---do-----	-----do-----	46 55	51 43	Berg (same as No. 1351).
1386	---do-----	-----do-----	47 02	52 09	Berg (same as No. 1356).
1387	---do-----	-----do-----	46 35	52 38	Growler.
1388	---do-----	-----do-----	46 48	52 21	Do.
1389	---do-----	-----do-----	47 45	60 00	Field ice.
			and northward		
1390	---do-----	Manchester Mariner	46 46	48 22	Berg (same as No. 1352).
1391	---do-----	-----do-----	46 55	47 09	Growler.
1392	---do-----	-----do-----	46 58	47 05	Do.
1393	---do-----	USNS Vela	47 05	52 44	Numerous growlers.
1394	---do-----	Cornwall	47 06	59 42	Field ice.
1395	---do-----	-----do-----	46 25	58 31	Do.
1396	---do-----	Empress of Scotland	47 41	60 07	Do.
			to		
			47 53	60 14	
1397	May 10	Unidentified vessel	45 36	48 42	Berg (same as No. 1374).
1398	---do-----	-----do-----	48 00	51 22	Berg.
1399	---do-----	USCGC Evergreen	46 18	47 49	Berg (same as No. 1378).
1400	---do-----	-----do-----	46 20	47 59	Berg (same as No. 1361).
1401	---do-----	-----do-----	46 07	47 32	Growler.
1402	---do-----	Konsul Sartore	46 39	52 28	Berg (same as No. 1383).
1403	---do-----	Seven Seas	47 00	50 18	Berg (same as No. 1338).
1404	---do-----	-----do-----	47 23	48 40	Berg.
1405	---do-----	-----do-----	47 35	47 44	Do.
1406	---do-----	-----do-----	47 42	57 27	Berg and growlers.
1407	---do-----	-----do-----	47 18	47 20	Field ice.
1408	---do-----	USNS Vela	47 19	52 40	Berg (same as No. 1285).
1409	---do-----	-----do-----	47 21	52 40	Berg (same as No. 1252).
1410	---do-----	Empress of Britain	47 55	49 50	Berg (same as No. 1233).
1411	---do-----	-----do-----	47 56	49 40	Berg (same as No. 1302).
1412	---do-----	-----do-----	48 05	49 23	Berg.
1413	---do-----	-----do-----	From		Field ice limits.
			48 05	49 23	
			to		
			47 46	48 15	
			to		
			47 29	47 35	
			to		
			47 27	47 02	
1414	---do-----	Haminea	46 09	58 22	Field ice.
1415	---do-----	Avis Bank	48 20	50 20	Do.
1416	---do-----	-----do-----	49 00	50 20	Do.
1417	---do-----	River Afton	48 44	49 31	Do.
			and to south and west		
1418	---do-----	Unidentified vessel	45 40	48 51	Berg (same as No. 1374).
1419	---do-----	-----do-----	45 36	48 24	Berg (same as No. 1374).
1420	---do-----	Birmingham City	45 49	48 52	Berg (same as No. 1418).
1421	---do-----	-----do-----	45 52	48 18	Berg (same as No. 1419).
1422	---do-----	-----do-----	46 08	48 25	Berg (same as No. 1376).
1423	---do-----	-----do-----	46 20	47 58	Berg (same as No. 1400).
1424	May 11	Rathlin Head	46 07	48 29	Berg (same as No. 1422).
1425	---do-----	-----do-----	46 27	48 01	Berg (same as No. 1423).
1426	---do-----	-----do-----	46 34	48 15	Berg (same as No. 1390).
1427	---do-----	USCGC Evergreen	46 42	45 44	Berg (same as No. 1281).
1428	---do-----	-----do-----	46 42	45 49	Berg (same as No. 1282).
1429	---do-----	-----do-----	46 44	46 58	Berg (same as No. 1269).
1430	---do-----	-----do-----	46 44	47 08	Berg (same as No. 1273).
1431	---do-----	-----do-----	47 00	47 20	Light field ice.
1432	---do-----	Cairndhu	46 43	46 00	Berg (same as No. 1299).
1433	---do-----	-----do-----	46 43	46 54	Berg (same as No. 1295).
1434	---do-----	-----do-----	46 44	46 56	Berg (same as No. 1430).
1435	---do-----	-----do-----	46 44	46 58	Berg (same as No. 1429).
1436	---do-----	Axel Gorthon	47 31	49 34	Berg (same as No. 1261).
1437	---do-----	-----do-----	47 37	49 51	Berg (same as No. 1297).
1438	---do-----	-----do-----	47 41	49 10	Berg (same as No. 1282).
1439	---do-----	-----do-----	47 44	48 54	Berg (same as No. 1427).
1440	---do-----	-----do-----	47 50	48 23	Berg (same as No. 1302).
1441	---do-----	-----do-----	47 54	48 44	Berg (same as No. 1298).
1442	---do-----	-----do-----	47 50	47 30	Heavy field ice.
1443	---do-----	Empress of France	47 09	46 47	Numerous growlers.
1444	---do-----	-----do-----	47 00	47 20	Field ice.
			and northwards		
1445	---do-----	Haminea	49 00	59 17	Do.
1446	---do-----	Avis Bank	48 48	49 16	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
			From Money Point to		
			46 50	59 10	
			to		
1447	---do-----	Canadian Department of Transport.	45 40	58 40	Field ice limits.
			to		
			45 20	59 30	
			to St. Esprit Island		
1448	May 12	Unidentified vessel----------	45 25	48 30	Berg (same as No. 1419).
1449	---do-----	-----do------------------	45 40	48 49	Berg (same as No. 1418).
1450	---do-----	Cuyahoga-----------------	45 25	49 00	Berg (same as No. 1337).
1451	---do-----	-----do------------------	46 02	48 45	Berg (same as No. 1422).
1452	---do-----	Manchester Merchant-------	45 33	48 32	Berg (same as No. 1421).
1453	---do-----	Torsholm-----------------	46 21	47 04	Berg (same as No. 1430).
1454	---do-----	Transquebec---------------	46 29	48 58	Berg (same as No. 1230).
1455	---do-----	-----do------------------	46 41	47 55	Berg (same as No. 1237).
1456	---do-----	-----do------------------	46 48	47 12	Field ice.
1457	---do-----	USCGC Evergreen----------	48 38	52 24	Berg (same as No. 1402).
1458	---do-----	-----do------------------	46 47	51 38	Berg (same as No. 1385).
1459	---do-----	USNS J. E. Kelley----------	47 02	52 46	Berg (same as No. 1408).
1460	---do-----	-----do------------------	47 16	52 39	Berg (same as No. 1409).
1461	---do-----	La Cumbre----------------	47 15	49 10	4 bergs (same as Nos. 1243, 1245, 1249 and 1251).
1462	---do-----	-----do------------------	47 31	52 15	Berg (same as No. 1292).
1463	---do-----	Bimini-------------------	47 30	47 30	Berg (same as No. 1405).
1464	---do-----	-----do------------------	47 35	48 15	2 bergs (same as Nos. 1440 and 1441).
1465	---do-----	Stanfield-----------------	47 58	48 57	Berg.
1466	---do-----	-----do------------------	48 00	49 12	Do.
1467	---do-----	-----do------------------	48 00	49 34	Do.
1468	---do-----	-----do------------------	48 03	49 12	Field ice.
			and to NNW and SSE		
1469	May 13	Ice Patrol plane------------	45 25	48 54	Berg (same as No. 1450).
1470	---do-----	-----do------------------	46 35	51 47	Berg (same as No. 1458).
1471	---do-----	-----do------------------	46 42	52 24	Berg (same as No. 1457).
1472	---do-----	-----do------------------	46 53	51 48	Berg (same as No. 1386).
1473	---do-----	-----do------------------	46 58	52 48	Berg (same as No. 1459).
1474	---do-----	-----do------------------	47 02	52 41	Berg (same as No. 1357).
1475	---do-----	-----do------------------	47 06	52 43	Berg (same as No. 1460).
1476	---do-----	Irish Pine----------------	45 11	48 34	Berg (same as No. 1448).
1477	---do-----	Roonagh Head-------------	45 30	48 10	Berg (same as No. 1399).
1478	---do-----	Unidentified vessel----------	45 34	48 15	Berg (same as No. 1477).
1479	---do-----	Torsholm-----------------	46 24	48 10	Berg (same as No. 1426).
1480	---do-----	Castel Felice--------------	46 39	46 48	Berg (same as No. 1429).
1481	---do-----	-----do------------------	46 45	46 48	Many growlers.
1482	---do-----	Carinthia-----------------	46 33	47 25	Numerous growlers.
1483	---do-----	USNS J. E. Kelley----------	47 08	52 42	Do.
			From		
1484	---do-----	Prins Frederik--------------	47 20	46 20	Field ice.
			to		
			46 45	47 20	
			46 20	59 00	
1485	---do-----	Cyrus Field---------------	to		Loose field ice.
			46 30	59 17	
1486	---do-----	Sheldrake-----------------	46 39	46 29	Scattered field ice.
1487	May 14	Vibyholm-----------------	44 55	48 45	Berg (same as No. 1476).
1488	---do-----	Marengo------------------	45 32	48 33	Berg (same as No. 1452).
1489	---do-----	-----do------------------	46 20	46 48	Berg (same as No. 1454).
1490	---do-----	-----do------------------	46 20	46 41	Several growlers.
1491	---do-----	Lewis R. Sanderson---------	45 39	48 49	Berg (same as No. 1449).
1492	---do-----	-----do------------------	45 40	48 57	Berg (same as No. 1469).
1493	---do-----	-----do------------------	45 43	48 46	Berg (same as No. 1451).
1494	---do-----	Nova Scotia---------------	46 07	47 13	Berg (same as No. 1453).
1495	---do-----	-----do------------------	47 03	50 05	Berg (same as No. 1349).
1496	---do-----	-----do------------------	46 18	47 14	Pieces field ice.
1497	---do-----	Sheldrake-----------------	46 27	47 17	Berg (same as No. 1404).
1498	---do-----	-----do------------------	46 30	47 13	2 bergs (same as Nos. 1244 and 1246).
1499	---do-----	Empress of England---------	46 35	47 02	Berg (same as No. 1480).
1500	---do-----	-----do------------------	46 37	47 06	Berg (same as No. 1498).
1501	---do-----	-----do------------------	46 37	47 09	Berg (same as No. 1498).
1502	---do-----	-----do------------------	46 37	47 30	Berg (same as No. 1455).
			47 10	46 07	
1503	---do-----	-----do------------------	to		Growlers and field ice.
			46 58	46 37	
			From		
1504	---do-----	Empress of England---------	46 47	46 54	Field ice.
			to		
			46 40	47 15	
1505	---do-----	Unidentified vessel----------	46 44	47 38	Numerous growlers and field ice.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1506	---do-----	USNS J. E. Kelley	46 52	52 50	Berg (same as No. 1473).
1507	---do-----	-----do	47 00	52 45	Berg (same as No. 1474).
1508	---do-----	Bergensfjord	47 00	46 05	Berg (same as No. 1406).
1509	---do-----	La Cumbre	47 20	47 25	Berg and numerous growlers (same as No. 1463).
1510	May 15	Ice Patrol plane	44 33	48 58	Berg (same as No. 1423).
1511	---do-----	-----do	44 39	49 00	Berg (same as No. 1487).
1512	---do-----	-----do	45 23	48 59	Berg (same as No. 1492).
1513	---do-----	-----do	45 24	48 48	Berg (same as No. 1488).
1514	---do-----	-----do	45 32	48 04	Berg (same as No. 1494).
1515	---do-----	-----do	45 33	48 28	Berg (same as No. 1491).
1516	---do-----	-----do	45 34	48 18	Berg (same as No. 1229).
1517	---do-----	-----do	45 35	48 48	Berg (same as No. 1493).
1518	---do-----	-----do	45 35	47 56	Berg (same as No. 1479).
1519	---do-----	-----do	45 41	48 40	Berg (same as No. 1241).
1520	---do-----	-----do	45 52	47 52	Berg (same as No. 1342).
1521	---do-----	-----do	45 52	47 20	Berg (same as No. 1490).
1522	---do-----	-----do	45 56	47 11	Berg (same as No. 1489).
1523	---do-----	-----do	46 02	47 50	Berg (same as No. 1497).
1524	---do-----	-----do	46 03	48 54	Berg (same as No. 1254).
1525	---do-----	-----do	46 08	48 59	Berg (same as No. 1253).
1526	---do-----	-----do	46 18	49 16	Berg (same as No. 1339).
1527	---do-----	-----do	46 21	49 19	Berg (same as No. 1341).
1528	---do-----	-----do	46 28	52 33	Berg (same as No. 1380).
1529	---do-----	-----do	46 39	52 52	Berg (same as No. 1506).
1530	---do-----	-----do	46 42	52 01	Berg (same as No. 1472).
1531	---do-----	-----do	46 46	52 57	Berg (same as No. 1382).
1532	---do-----	-----do	46 53	52 40	Berg (same as No. 1507).
1533	---do-----	-----do	47 04	52 50	Berg (same as No. 1475).
1534	---do-----	-----do	44 01	49 47	Growler.
1535	---do-----	-----do	44 03	49 28	Do.
1536	---do-----	-----do	44 16	48 43	Do.
1537	---do-----	-----do	45 58	47 20	Do.
1538	---do-----	-----do	Gull Island to 46 55 to 47 05	51 55 to 51 20	Field ice.
1539	---do-----	-----do	46 10	47 19	Do.
1540	---do-----	City of Poona	44 53	49 03	3 bergs (same as Nos. 1510 and 1511).
1541	---do-----	Suninger	44 59	48 35	Berg (same as No. 1511).
1542	---do-----	Unidentified vessel	45 18	48 30	Berg.
1543	---do-----	-----do	45 24	48 46	Berg (same as No. 1513).
1544	---do-----	Rookwood	45 22	49 07	Berg (same as No. 1512).
1545	---do-----	-----do	45 34	48 31	Berg (same as No. 1515).
1546	---do-----	-----do	45 16	49 03	Growler.
1547	---do-----	Salacia	45 31	49 01	Berg (same as No. 1544).
1548	---do-----	-----do	45 39	48 45	Berg (same as No. 1517).
1549	---do-----	-----do	45 44	48 32	Berg (same as No. 1545).
1550	---do-----	-----do	45 44	48 01	Berg (same as No. 1514).
1551	---do-----	-----do	45 48	47 53	Berg (same as No. 1518).
1552	---do-----	-----do	45 57	47 25	Berg (same as No. 1521).
1553	---do-----	-----do	45 45	47 51	3 growlers.
1554	---do-----	New York	46 10	47 20	Berg (same as No. 1552).
1555	---do-----	-----do	46 13	46 48	Berg (same as No. 1499).
1556	---do-----	-----do	46 13	47 46	Berg (same as No. 1523).
1557	---do-----	-----do	46 21	47 23	Berg (same as No. 1501).
1558	---do-----	-----do	46 23	47 25	Berg (same as No. 1502).
1559	---do-----	-----do	46 10 and northeastward	47 20	Scattered field ice.
1560	---do-----	Ivernia	46 24	52 34	Berg (same as No. 1528).
1561	---do-----	-----do	46 34	47 19	Berg (same as No. 1558).
1562	---do-----	Prins Willem IV	46 28	47 26	Berg (same as No. 1558).
1563	---do-----	-----do	46 24	48 13	Growler.
1564	---do-----	-----do	46 31 to 46 40	47 10 to 46 33	Numerous growlers.
1565	---do-----	Stanfield	46 45	48 00	2 bergs (same as Nos. 1255 and 1288).
1566	---do-----	-----do	46 52	48 11	Berg.
1567	---do-----	Nea Hellas	46 27	46 19	Growler.
1568	---do-----	Wiedenborstel	46 26	47 00	Numerous growlers.
1569	---do-----	USNS Vela	St. George Bay		Scattered field ice.
1570	---do-----	Canadian Department of Transport.	From St. Esprit Island to 45 30 to 45 40 to	59 40 to 58 50	Cape Breton ice limits.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
			Scatari Island		
			to		
1570	---do-----	Canadian Department of Transport.	46 20	59 50	Cape Breton ice limits.
			to		
			46 25	60 30	
1571	May 16	Indiana	45 26	48 30	Berg (same as No. 1549).
1572	---do-----	Assyria	46 38	47 09	Berg (same as No. 1500).
1573	---do-----	-----do	46 12	48 55	Growler.
1574	---do-----	Arthur Cross	46 43	53 00	Berg (same as No. 1531).
1575	---do-----	-----do	46 57	52 50	Berg (same as No. 1532).
1576	---do-----	-----do	47 02	52 49	Berg (same as No. 1533).
			From		
1577	---do-----	Windsor	46 05	47 02	Numerous growlers.
			to		
			45 42	49 10	
1578	---do-----	Newfoundland	46 20	46 25	Many growlers.
			and southwestward		
1579	---do-----	Ellinis	47 25	47 40	Field ice.
1580	---do-----	-----do	47 25	48 00	Do.
1581	---do-----	Moisie Bay	45 50	59 35	Scattered field ice.
1582	May 17	Ice Patrol plane	44 11	48 58	Berg (same as No. 1540).
1583	---do-----	-----do	44 13	49 12	Berg (same as No. 1540).
1584	---do-----	-----do	44 58	48 45	Berg (same as No. 1541).
1585	---do-----	-----do	45 00	49 10	Berg (same as No. 1571).
1586	---do-----	-----do	45 08	49 13	Berg (same as No. 1547).
1587	---do-----	-----do	45 09	48 29	Berg (same as No. 1543).
1588	---do-----	-----do	45 12	48 36	Berg (same as No. 1516).
1589	---do-----	-----do	45 15	48 45	Berg (same as No. 1550).
1590	---do-----	-----do	45 17	49 09	Berg (same as No. 1524).
1591	---do-----	-----do	45 40	50 20	Berg (same as No. 1225).
1592	---do-----	-----do	45 54	50 47	Berg (same as No. 1228).
1593	---do-----	-----do	46 00	50 43	Berg (same as No. 1227).
1594	---do-----	-----do	46 24	52 30	Berg (same as No. 1560).
1595	---do-----	-----do	46 35	52 00	Berg (same as No. 1530).
1596	---do-----	-----do	46 40	52 57	Berg (same as No. 1529).
1597	---do-----	-----do	46 47	52 56	Berg (same as No. 1574).
1598	---do-----	-----do	46 58	52 15	Berg (same as No. 1462).
1599	---do-----	-----do	44 03	48 38	Growler.
1600	---do-----	USAF plane	44 48	48 48	Berg (same as No. 1584).
			Between		
1601	---do-----	Olympia	44 55	48 50	3 bergs, 2 growlers (same as Nos. 1584, 1585 and 1587).
			and		
			44 55	48 55	
1602	---do-----	Unidentified vessel	45 30	48 36	2 bergs (same as Nos. 1517 and 1519).
1603	---do-----	-----do	46 12	52 27	Berg (same as No. 1471).
1604	---do-----	Neptunia	45 59	46 55	Radar target, possible berg.
1605	---do-----	-----do	45 59	47 16	Do.
1606	---do-----	-----do	46 05	47 29	Do.
1607	---do-----	-----do	46 05	46 43	Do.
1608	---do-----	-----do	46 07	47 21	Do.
1609	---do-----	Beaverlake	46 02	47 17	Berg (same as No. 1565).
1610	---do-----	-----do	46 10	47 11	Berg (same as No. 1561).
1611	---do-----	-----do	46 12	47 40	Berg (same as No. 1565).
1612	---do-----	-----do	46 16	47 43	Berg (same as No. 1566).
1613	---do-----	-----do	46 18	47 00	Numerous growlers and loose pieces of field ice.
1614	---do-----	-----do	46 18	47 20	Field ice.
1615	---do-----	-----do	46 37	46 40	Do.
			and to northwestward		
1616	---do-----	Traviata	46 09	52 23	Berg (same as No. 1603).
1617	---do-----	Beaverburn	46 12	47 10	Berg (same as No. 1610).
1618	---do-----	-----do	46 13	47 32	Berg (same as No. 1439).
1619	---do-----	-----do	46 22	47 00	Berg (same as No. 1464).
1620	---do-----	-----do	46 43	46 59	Berg (same as No. 1464).
			From		
			46 37	46 47	
			to		
1621	---do-----	-----do	46 35	46 58	Strings of open pack ice and growlers.
			to		
			46 19	47 04	
			to northward		
			From		
			46 25	47 06	
			to		
1622	---do-----	-----do	46 18	47 00	Scattered pieces of field ice and numerous growlers.
			to		
			46 18	47 32	
			to		
			46 12	47 29	

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1623	---do-----	Newfoundland	46 14	47 31	Berg (same as No. 1557).
1624	---do-----	-----do	46 19	47 11	Berg (same as No. 1618).
1625	---do-----	-----do	46 39	51 49	Berg (same as No. 1470).
1626	---do-----	Oslofjord	46 14	47 13	Berg (same as No. 1624).
1627	---do-----	-----do	46 20	47 40	2 bergs (same as Nos. 1611 and 1612).
1628	---do-----	-----do	46 30	47 00	Numerous growlers.
1629	---do-----	Gileannes	46 18	52 26	Berg (same as No. 1616).
1630	---do-----	Arosa Sun	46 54	47 23	Berg (same as No. 1509).
1631	---do-----	-----do	46 34	47 49	Growler.
1632	---do-----	-----do	46 46	47 53	Do.
1633	---do-----	-----do	46 55	47 28	Do.
1634	---do-----	-----do	46 59	47 03	Do.
1635	---do-----	Fort Avalon	47 02	52 49	Berg (same as No. 1533).
1636	---do-----	-----do	47 26	52 38	Growler.
1637	---do-----	Ellinis	48 40	48 05	2 bergs, numerous growlers.
1638	---do-----	Empress of Scotland	From 47 00	47 00 to NNE	Field ice.
1639	May 18	Ice Patrol plane	43 46	49 02	Berg (same as No. 1582).
1640	---do-----	-----do	43 50	49 12	Berg (same as No. 1583).
1641	---do-----	-----do	44 40	48 46	Berg (same as No. 1584).
1642	---do-----	-----do	44 47	48 41	Berg (same as No. 1587).
1643	---do-----	-----do	44 48	48 46	Berg (same as No. 1588).
1644	---do-----	-----do	44 52	49 18	Berg (same as No. 1585).
1645	---do-----	-----do	45 05	48 33	Berg (same as No. 1589).
1646	---do-----	-----do	45 13	48 05	Berg (same as No. 1518).
1647	---do-----	-----do	45 17	47 52	Berg (same as No. 1520).
1648	---do-----	-----do	45 20	48 46	Berg (same as No. 1602).
1649	---do-----	-----do	45 20	49 07	Berg (same as No. 1590).
1650	---do-----	-----do	45 24	48 51	Berg (same as No. 1523).
1651	---do-----	-----do	45 24	48 30	Berg (same as No. 1521).
1652	---do-----	-----do	45 50	48 05	Berg (same as No. 1522).
1653	---do-----	-----do	45 54	48 05	Berg (same as No. 1525).
1654	---do-----	-----do	46 42	51 43	Berg (same as No. 1247).
1655	---do-----	-----do	47 16	51 38	Berg (same as No. 1265).
1656	---do-----	-----do	47 17	51 29	Berg (same as No. 1256).
1657	---do-----	-----do	47 19	51 22	Berg (same as No. 1259).
1658	---do-----	-----do	47 23	51 30	Berg (same as No. 1279).
1659	---do-----	-----do	47 23	51 49	Berg (same as No. 1296).
1660	---do-----	-----do	47 28	51 38	Berg.
1661	---do-----	-----do	47 28	52 35	Berg (same as No. 1287).
1662	---do-----	-----do	47 32	52 30	Berg.
1663	---do-----	-----do	47 36	52 18	Do.
1664	---do-----	-----do	47 38	51 45	Do.
1665	---do-----	-----do	47 42	52 33	Do.
1666	---do-----	-----do	47 42	52 42	Do.
1667	---do-----	-----do	47 47	52 42	Do.
1668	---do-----	-----do	47 51	52 47	Do.
1669	---do-----	-----do	47 54	52 52	Do.
1670	---do-----	-----do	47 52	52 56	Do.
1671	---do-----	-----do	48 04	52 50	Do.
1672	---do-----	-----do	Line from 48 10 to 47 40 to 47 40	52 40 to 52 00 to 51 10	Southern field ice limits.
1673	---do-----	Mormacoak	44 55	49 06	Berg (same as No. 1586).
1674	---do-----	-----do	45 15	48 13	Berg.
1675	---do-----	-----do	45 08	48 03	Numerous growlers.
1676	---do-----	Unidentified vessel	45 20	48 48	Berg.
1677	---do-----	-----do	45 59	46 03	Berg (same as No. 1607).
1678	---do-----	Elsbeth Wiards	45 21	47 51	Berg (same as No. 1647).
1679	---do-----	USCGC Chincoteague	46 00	47 20	Berg (same as No. 1605).
1680	---do-----	-----do	46 15	47 26	Berg (same as No. 1623).
1681	---do-----	-----do	46 15	46 33	Berg (same as No. 1555).
1682	---do-----	-----do	46 19	50 20	Berg.
1683	---do-----	-----do	46 21	47 08	Berg (same as No. 1619).
1684	---do-----	Traviata	46 02	47 15	Berg (same as No. 1609).
1685	---do-----	Beaverburn	46 05	47 30	Berg (same as No. 1606).
1686	---do-----	-----do	46 06	47 35	Berg (same as No. 1611).
1687	---do-----	-----do	46 13	47 42	Berg (same as No. 1612).
1688	---do-----	-----do	46 17	47 45	Berg (same as No. 1623).
1689	---do-----	Cairngowan	46 42	51 45	Berg (same as No. 1625).
1690	---do-----	USNS Towle	47 43	50 05	Several bergs and growlers (same as Nos. 1276, 1277 and 1300).
1691	---do-----	-----do	47 45	48 48	Berg (same as No. 1465).
1692	---do-----	-----do	47 48	49 06	Berg (same as No. 1467).
1693	---do-----	-----do	47 50	48 57	Berg (same as No. 1466).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1694	---do-----	-----do-------------------	47 49 and to north and south	48 51	String field ice.
1695	---do-----	Waldemar Peter------------	47 02	46 22	Field ice and growlers.
1696	May 19	Ice Patrol plane----------	43 22	49 21	Berg (same as No. 1640).
1697	---do-----	-----do-------------------	43 31	49 19	Berg (same as No. 1639).
1698	---do-----	-----do-------------------	44 49	48 31	Berg (same as No. 1645).
1699	---do-----	-----do-------------------	44 57	48 58	Berg (same as No. 1673).
1700	---do-----	-----do-------------------	45 05	48 07	Berg (same as No. 1674).
1701	---do-----	-----do-------------------	45 15	48 00	Berg (same as No. 1678).
1702	---do-----	-----do-------------------	45 15	49 01	Berg (same as No. 1649).
1703	---do-----	-----do-------------------	45 16	48 19	Berg (same as No. 1648).
1704	---do-----	-----do-------------------	45 22	48 55	Berg (same as No. 1650).
1705	---do-----	-----do-------------------	46 28	52 09	Berg (same as No. 1595).
1706	---do-----	-----do-------------------	46 36	51 40	Berg (same as No. 1689).
1707	---do-----	-----do-------------------	46 50	52 55	Berg (same as No. 1635).
1708	---do-----	-----do-------------------	46 54	52 34	Berg (same as No. 1598).
1709	---do-----	-----do-------------------	46 56	52 52	Berg.
1710	---do-----	-----do-------------------	Between lats. 47°10′ N. and 48°00′ N. and longs. 50°40′ W. and 52°40′ W.		Approximately 50 bergs.
1711	---do-----	Ice Patrol vessel---------	43 22	49 17	Berg (same as No. 1696).
1712	---do-----	Cassiopia-----------------	43 18	49 15	Berg (same as No. 1640).
1713	---do-----	-----do-------------------	43 20	48 52	Berg (same as No. 1639).
1714	---do-----	Ophelia-------------------	44 58	49 13	Berg (same as No. 1644).
1715	---do-----	-----do-------------------	45 15	48 20	Berg and many growlers (same as No. 1703).
1716	---do-----	-----do-------------------	45 16	49 07	Berg (same as No. 1702).
1717	---do-----	Irish Poplar--------------	44 59	48 35	Berg (same as No. 1645).
1718	---do-----	Unidentified vessel-------	45 19	49 03	Berg (same as No. 1716).
1719	---do-----	-----do-------------------	45 39	48 20	Berg (same as No. 1652).
1720	---do-----	Veslefjell----------------	45 56	45 39	Berg (same as No. 1677).
1721	---do-----	Cedar Trader--------------	46 08	46 31	Berg (same as No. 1683).
1722	---do-----	-----do-------------------	46 08	46 49	Berg (same as No. 1684).
1723	---do-----	-----do-------------------	46 15	46 16	Berg (same as No. 1681).
1724	---do-----	-----do-------------------	46 16	46 42	Berg (same as No. 1618).
1725	---do-----	-----do-------------------	46 24	46 27	Berg (same as No. 1620).
1726	---do-----	Ascania-------------------	46 09	47 40	Berg (same as No. 1687).
1727	---do-----	-----do-------------------	46 10	47 29	Berg (same as No. 1617).
1728	---do-----	Malaga--------------------	46 10	47 30	Berg (same as No. 1688).
1729	---do-----	-----do-------------------	46 25	46 10	Berg (same as No. 1508).
1730	---do-----	-----do-------------------	46 20	46 10	2 growlers.
1731	---do-----	-----do-------------------	46 24	46 38	Growler.
1732	---do-----	Cairngowan----------------	46 35	48 00	Berg (same as No. 1630).
1733	---do-----	Saxonia-------------------	46 42	51 41	Berg (same as No. 1706).
1734	---do-----	-----do-------------------	47 09	49 11	Berg (same as No. 1495).
1735	---do-----	-----do-------------------	47 14	49 01	Berg (same as No. 1690).
1736	---do-----	-----do-------------------	46 57	51 01	3 growlers.
1737	---do-----	Ameriki-------------------	47 10	51 30	Berg (same as No. 1655).
1738	---do-----	Mackay--------------------	47 16	51 22	Berg (same as No. 1656).
1739	---do-----	-----do-------------------	47 18	50 56	Berg (same as No. 1657).
1740	---do-----	-----do-------------------	47 29	50 57	Berg (same as No. 1658).
1741	---do-----	-----do-------------------	48 00 to 47 42	48 40 to 49 38	19 bergs.
1742	---do-----	Elsie Winck---------------	42 30	50 35	Several growlers.
1743	---do-----	USCGC Chincoteague--------	46 11	46 15	Numerous large growlers.
1744	---do-----	Canadian Department of Transport.	Vicinity of 45 40	59 40	Scattered field ice.
1745	May 20	Ice Patrol plane----------	42 45	49 15	Berg (same as No. 1711).
1746	---do-----	-----do-------------------	43 17	48 20	Berg (same as No. 1713).
1747	---do-----	-----do-------------------	43 43	48 27	Berg (same as No. 1641).
1748	---do-----	-----do-------------------	46 17	52 20	Berg (same as No. 1594).
1749	---do-----	-----do-------------------	46 31	53 12	Berg (same as No. 1596).
1750	---do-----	-----do-------------------	46 43	53 00	Berg (same as No. 1597).
1751	---do-----	-----do-------------------	46 58	52 45	Berg (same as No. 1709).
1752	---do-----	-----do-------------------	47 04	52 36	Berg (same as No. 1662).
1753	---do-----	Ice Patrol vessel---------	42 48	49 20	Berg (same as No. 1745).
1754	---do-----	Prins Willem IV-----------	43 45	48 48	Berg (same as No. 1747).
1755	---do-----	Kentucky------------------	44 39	48 22	Berg (same as No. 1698).
1756	---do-----	-----do-------------------	44 47	48 03	Berg (same as No. 1642).
1757	---do-----	-----do-------------------	44 51	49 07	Berg (same as No. 1714).
1758	---do-----	Sun Valley----------------	44 55	49 05	Berg (same as No. 1757).
1759	---do-----	-----do-------------------	45 11	48 17	Berg (same as No. 1528).
1760	---do-----	-----do-------------------	45 18	47 45	Berg (same as No. 1701).
1761	---do-----	-----do-------------------	45 20	47 55	Berg (same as No. 1715).
1762	---do-----	-----do-------------------	45 01	48 28	Growler.
1763	---do-----	Alcoa---------------------	44 58	48 51	Berg (same as No. 1699).
1764	---do-----	Gripsholm-----------------	45 03	47 35	Berg (same as No. 1527).
1765	---do-----	-----do-------------------	45 04	48 12	Berg (same as No. 1700).
1766	---do-----	-----do-------------------	45 08	48 11	Berg (same as No. 1759).
1767	---do-----	-----do-------------------	45 12	48 30	Berg (same as No. 1719).

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
1768	---do-----	-----do-----	45 13	49 01	Berg (same as No. 1591).
1769	---do-----	-----do-----	45 14	47 43	Berg (same as No. 1760).
1770	---do-----	-----do-----	45 14	47 58	Berg (same as No. 1715).
1771	---do-----	-----do-----	45 18	48 51	Berg (same as No. 1704).
1772	---do-----	-----do-----	45 19	48 53	Berg (same as No. 1718).
1773	---do-----	-----do-----	45 13	48 04	Growler.
1774	---do-----	-----do-----	45 13	48 08	Do.
1775	---do-----	Warkworth	45 18	48 00	Berg (same as No. 1770).
1776	---do-----	-----do-----	45 20	47 36	Berg (same as No. 1651).
1777	---do-----	-----do-----	45 20	47 49	Berg (same as No. 1760).
1778	---do-----	-----do-----	45 26	47 36	Berg (same as No. 1653).
1779	---do-----	-----do-----	45 18	47 48	Growler.
1780	---do-----	Unidentified vessel	45 19	48 52	2 bergs (same as Nos. 1771 and 1772).
1781	---do-----	-----do-----	45 24	48 48	Berg (same as No. 1771).
1782	---do-----	USN plane	45 58	47 32	Berg (same as No. 1686).
1783	---do-----	Cedar Trader	46 01	47 53	Berg (same as No. 1732).
1784	---do-----	-----do-----	46 05	47 14	Berg (same as No. 1727).
1785	---do-----	-----do-----	46 13	47 14	Berg (same as No. 1728).
1786	---do-----	-----do-----	46 22	52 20	Berg (same as No. 1748).
1787	---do-----	Lismoria	46 04	46 17	Berg (same as No. 1721).
1788	---do-----	-----do-----	46 12	46 37	Berg (same as No. 1724).
1789	---do-----	Erika Schulte	46 20	52 20	Berg (same as No. 1748).
1790	---do-----	-----do-----	46 24	52 34	Berg (same as No. 1616).
1791	---do-----	Groote Beer	46 48	46 56	2 bergs.
1792	---do-----	Empress of France	47 13	49 00	Berg (same as No. 1734).
1793	---do-----	-----do-----	47 15	49 05	Berg (same as No. 1735).
1794	---do-----	-----do-----	47 27	48 28	Berg (same as No. 1741).
1795	---do-----	-----do-----	47 31	48 41	Berg (same as No. 1741).
1796	---do-----	-----do-----	47 36	48 57	Berg (same as No. 1741).
1797	---do-----	-----do-----	47 44	48 22	Berg (same as No. 1741).
1798	---do-----	-----do-----	47 48	48 44	Berg (same as No. 1741).
1799	---do-----	-----do-----	47 49	48 18	Berg (same as No. 1741).
1800	---do-----	-----do-----	47 52	48 18	Berg (same as No. 1741).
1801	---do-----	-----do-----	47 47 to 47 54	48 12 to 47 40	10 bergs, field ice.
1802	---do-----	-----do-----	48 04	47 19	Berg.
1803	---do-----	-----do-----	47 59	47 10	Growler.
1804	---do-----	-----do-----	48 02	47 23	Do.
1805	---do-----	-----do-----	48 07	47 09	Do.
1806	---do-----	Saxonia	47 33	48 26	Berg (same as No. 1741).
1807	---do-----	-----do-----	47 40	47 11	Berg.
1808	---do-----	-----do-----	47 42	47 52	Berg (same as No. 1741).
1809	---do-----	-----do-----	47 45	47 10	Berg.
1810	---do-----	-----do-----	47 53	47 46	Berg (same as No. 1741).
1811	---do-----	-----do-----	48 04	47 20	Berg.
1812	---do-----	-----do-----	47 55	47 56	Growlers.
1813	---do-----	-----do-----	48 17	46 46	Do.
1814	---do-----	-----do-----	From 47 30 to 47 39	48 40 to 48 15	Scattered field ice.
1815	---do-----	Leada	47 45	47 51	Berg and field ice (same as No. 1808)
1816	---do-----	-----do-----	47 52	47 30	Berg and field ice (same as No. 1801).
1817	---do-----	-----do-----	48 00	47 14	2 bergs.
1818	May 21	Ice Patrol vessel	42 21	50 05	Berg (same as No. 1753).
1819	---do-----	Lismoria	44 47	48 50	Berg (same as No. 1763).
1820	---do-----	Corinaldo	45 00	48 07	Berg (same as No. 1765).
1821	---do-----	-----do-----	45 10	47 48	Berg (same as No. 1845).
1822	---do-----	-----do-----	45 12	48 56	Berg (same as No. 1768).
1823	---do-----	-----do-----	45 15	47 52	Berg (same as No. 1761).
1824	---do-----	-----do-----	45 15	49 00	Berg (same as No. 1781).
1825	---do-----	-----do-----	45 26	47 08	Berg (same as No. 1722).
1826	---do-----	La Sierra	45 14	48 54	Berg (same as No. 1822).
1827	---do-----	-----do-----	45 23	48 44	Berg (same as No. 1824).
1828	---do-----	-----do-----	45 23	47 50	Berg (same as No. 1685).
1829	---do-----	-----do-----	45 27	48 17	Berg (same as No. 1680).
1830	---do-----	-----do-----	45 28	47 50	Berg (same as No. 1726).
1831	---do-----	-----do-----	45 30	47 16	Berg (same as No. 1825).
1832	---do-----	-----do-----	45 31	47 37	Berg (same as No. 1778).
1833	---do-----	Unidentified vessel	45 20	48 27	Berg (same as No. 1829).
1834	---do-----	-----do-----	45 21	48 44	Berg (same as No. 1827).
1835	---do-----	Alexandros Corizis	45 40	47 47	Berg (same as No. 1679).
1836	---do-----	-----do-----	46 10	46 07	Berg (same as No. 1723).
1837	---do-----	Orion	45 43	44 01	Berg.
1838	---do-----	Borgholm	45 51	47 42	Berg (same as No. 1782).
1839	---do-----	Minnesota	45 54	44 16	Berg (same as No. 1720).
1840	---do-----	Erika Schulte	45 59	46 08	Berg (same as No. 1787).
1841	---do-----	-----do-----	46 09	46 37	Berg (same as No. 1788).
1842	---do-----	Ellinis	47 02	46 47	Berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1843	---do-----	Empress of Britain---------	47 40	48 49	Berg (same as No. 1741).
1844	---do-----	-----do------------------	47 43	48 50	Berg (same as No. 1741).
1845	---do-----	-----do------------------	From 47 46 to 47 59	48 22 to 47 58	Numerous bergs and growlers (same as No. 1801).
1846	---do-----	-----do------------------	47 41 and to NW	48 29	Heavy field ice.
1847	---do-----	Trewidden----------------	47 52	49 23	Heavy field ice containing numerous bergs (same as No. 1741).
1848	---do-----	USN plane----------------	From 49 30 to Fogo Island to Burnt Island to 50 40 to 50 40 to Groas Island to 51 35 to Belle Isle to 52 30	54 00 ... 55 00 ... 53 50 ... 54 50 ... 55 20	Western limits observed field ice.
1849	May 22	Ice Patrol vessel-----------	42 05	50 51	Berg (same as No. 1818).
1850	---do-----	Unidentified vessel---------	45 20	48 35	2 bergs (same as Nos. 1822 and 1824).
1851	---do-----	Manchester Trader---------	45 45	46 43	Berg (same as No. 1791).
1852	---do-----	-----do------------------	46 04	45 33	Berg (same as No. 1836).
1853	---do-----	Rathlin Head--------------	46 19	48 02	Berg.
1854	---do-----	-----do------------------	46 20	47 52	Do.
1855	---do-----	-----do------------------	46 21	47 54	Berg (same as No. 1791).
1856	---do-----	-----do------------------	46 26	47 45	Berg (same as No. 1785).
1857	---do-----	-----do------------------	46 28	47 55	Berg.
1858	---do-----	-----do------------------	46 30	47 56	Do.
1859	---do-----	-----do------------------	46 31	47 51	Do.
1860	---do-----	-----do------------------	46 33	47 43	Berg (same as No. 1725).
1861	---do-----	-----do------------------	46 34	47 26	Berg (same as No. 1729).
1862	---do-----	-----do------------------	46 36	47 23	Berg.
1863	---do-----	-----do------------------	46 36	47 19	Berg (same as No. 1851).
1864	---do-----	-----do------------------	46 38	47 12	Berg.
1865	---do-----	-----do------------------	46 39	47 33	Do.
1866	---do-----	-----do------------------	46 20 and to northward	48 00	Field ice.
1867	---do-----	Trewidden----------------	46 22	52 07	Berg (same as No. 1722).
1868	---do-----	-----do------------------	46 45	51 32	Berg (same as No. 1733).
1869	---do-----	Fanad Head---------------	46 24	47 25	2 bergs and field ice (same as No. 1865).
1870	---do-----	-----do------------------	46 24	47 48	2 bergs (same as Nos. 1853 and 1854).
1871	---do-----	-----do------------------	46 25	47 50	Field ice.
1872	---do-----	Ingleby------------------	46 43	47 07	Berg and numerous growlers (same as No. 1863).
1873	---do-----	-----do------------------	46 59	48 47	Berg (same as No. 1786).
1874	---do-----	-----do------------------	47 14	51 10	2 bergs (same as No. 1710).
1875	---do-----	-----do------------------	47 18 and vicinity	51 50	7 bergs (same as No. 1710).
1876	---do-----	Arabia-------------------	46 45	51 25	Berg (same as No. 1868).
1877	---do-----	-----do------------------	47 50	47 49	2 bergs (same as No. 1845).
1878	---do-----	-----do------------------	From 47 52 to 47 43 to 47 25	47 21 to 47 49 to 47 38	Southeast field ice limits.
1879	---do-----	-----do------------------	47 23 to 47 23 and to north and south	47 48 to 47 58	Field ice.
1880	---do-----	USCGC Mendota-----------	47 16	49 07	Berg (same as No. 1793).
1881	---do-----	-----do------------------	47 25 and to NW and SE	48 52	5 bergs, heavy field ice (same as No. 1741).
1882	---do-----	-----do------------------	47 36 to 47 25	48 35 to 48 52	Numerous growlers.
1883	---do-----	Unidentified plane---------	49 05	59 45	Berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1884	May 23	Ice Patrol vessel	41 46	50 42	Berg (same as No. 1849).
1885	do	do	41 20	50 00	Growlers (same as No. 1884).
1886	do	Unidentified vessel	45 19	48 28	Berg (same as No. 1833).
1887	do	do	45 20	48 35	2 bergs (same as No. 1850).
1888	do	do	45 27	49 05	Berg (same as No. 1887).
1889	do	do	45 29	48 52	Berg (same as No. 1887).
1890	do	USCGC Mendota	46 20	52 22	Berg (same as No. 1841).
1891	do	do	46 24	53 12	Berg (same as No. 1749).
1892	do	do	46 43	51 45	Berg (same as No. 1876).
1893	do	USS Edisto	46 22	52 20	Berg (same as No. 1890).
1894	do	do	46 26	53 21	Berg (same as No. 1891).
1895	do	Ville de Quebec	46 23	53 17	Berg (same as No. 1894).
1896	do	Cressington Court	46 38	51 52	Several bergs (same as Nos. 1710 and 1892).
1897	do	do	46 48	51 08	Berg (same as No. 1874).
1898	do	Beaverford	46 45	51 51	Berg (same as No. 1896).
1899	do	do	46 47	51 45	Berg (same as No. 1896).
1900	do	do	47 02	51 16	Berg (same as No. 1874).
1901	do	do	47 04	51 51	Berg (same as No. 1875).
1902	do	do	47 11	51 19	Berg (same as No. 1875).
1903	do	do	47 12	51 16	Berg (same as No. 1875).
1904	do	do	47 22	49 06	Berg (same as No. 1881).
1905	do	do	47 29	49 19	Berg and scattered field ice (same as No. 1847).
1906	do	do	47 30	48 43	Berg (same as No. 1806).
1907	do	do	47 30	48 49	Berg (same as No. 1795).
1908	do	do	47 35	49 16	Berg and scattered field ice (same as No. 1847).
1909	do	do	47 36	49 27	Do.
1910	do	do	47 25 and to westward	49 28	Field ice.
1911	do	Rathlin Head	46 48	47 09	Berg (same as No. 1815).
1912	do	do	46 41	47 24	Large growlers.
1913	do	do	46 42	47 22	Do.
1914	do	Brighton	46 55	48 35	3 bergs, numerous growlers (same as Nos. 1792, 1794 and 1873).
1915	do	Lakonia	46 50	47 18	Many bergs and growlers (same as Nos. 1855–1860, 1862 and 1865).
1916	do	do	46 56	47 19	2 bergs (same as No. 1817).
1917	do	do	47 19	46 37	Berg (same as No. 1816).
1918	do	do	47 29	46 09	Growler.
1919	do	Ingleby	Conception Bay		Heavy field ice.
1920	May 24	Ice Patrol plane	43 10	49 30	Berg (same as No. 1757).
1921	do	do	43 36	48 48	Berg (same as No. 1747).
1922	do	do	43 38	48 51	Berg (same as No. 1755).
1923	do	do	43 47	48 44	Berg (same as No. 1756).
1924	do	do	43 50	48 58	Berg (same as No. 1819).
1925	do	do	43 55	49 05	Berg (same as No. 1766).
1926	do	do	44 15	48 51	Berg (same as No. 1767).
1927	do	do	44 17	48 45	Berg (same as No. 1764).
1928	do	do	44 20	48 48	Berg (same as No. 1769).
1929	do	do	44 33	48 39	Berg (same as No. 1820).
1930	do	do	44 38	48 31	Berg (same as No. 1821).
1931	do	do	44 40	48 38	Berg (same as No. 1823).
1932	do	do	44 47	48 29	Berg (same as No. 1783).
1933	do	do	44 50	48 20	Berg (same as No. 1825).
1934	do	do	44 51	48 28	Berg (same as No. 1886).
1935	do	do	44 55	48 26	Berg (same as No. 1828).
1936	do	do	44 58	48 27	Berg (same as No. 1832).
1937	do	do	44 59	48 21	Berg (same as No. 1835).
1938	do	do	45 02	48 28	Berg (same as No. 1838).
1939	do	do	45 03	48 35	Berg.
1940	do	do	45 05	48 34	Do.
1941	do	do	45 07	48 42	Do.
1942	do	do	45 08	48 57	Do.
1943	do	do	45 09	49 05	Do.
1944	do	do	45 14	48 48	Berg (same as No. 1889).
1945	do	do	45 17	49 09	Berg.
1946	do	do	45 18	49 00	Do.
1947	do	do	45 24	48 48	Berg (same as No. 1888).
1948	do	do	45 28	48 49	Berg.
1949	do	do	46 17	52 15	Berg (same as No. 1893).
1950	do	do	46 19	53 15	Berg (same as No. 1894).
1951	do	do	42 55	49 59	Growler.
1952	do	do	42 54	49 40	Do.
1953	do	do	43 15	49 27	Do.
1954	do	do	43 27	49 07	Do.
1955	do	do	44 38	49 12	Do.
1956	do	do	Between longs. 47°30′ W. and 49°00′ W. and north of 45°00′ N.		Hundreds of growlers, bergy bits, and pieces of field ice.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
1957	---do-----	Ice Patrol vessel	41 14	49 47	Numerous growlers.
1958	---do-----	-----do	42 52	49 40	Growlers.
1959	---do-----	Unidentified vessel	45 13	48 55	Berg (same as No. 1944).
1960	---do-----	-----do	45 28	48 44	Berg (same as No. 1947).
1961	---do-----	Arosa Star	45 34	48 00	2 bergs (same as No. 1869).
1962	---do-----	Bernard Howaldt	Vicinity of 46 02	52 00	Several bergs (same as Nos. 1790 and 1867).
1963	---do-----	-----do	47 24	50 11	Growlers.
1964	---do-----	-----do	47 21	51 27	Field ice.
1965	---do-----	Ivernia	46 21	53 22	Berg (same as No. 1950).
1966	---do-----	-----do	46 24	52 21	Berg (same as No. 1893).
1967	---do-----	Empress of England	46 35	48 30	Many bergs, growlers, and pieces field ice (same as No. 1914).
1968	---do-----	-----do	46 45	51 08	Berg (same as No. 1897).
1969	---do-----	-----do	46 49	51 44	Berg (same as No. 1899).
1970	---do-----	-----do	46 50	51 38	Berg (same as No. 1896).
1971	---do-----	-----do	46 53	51 27	Berg (same as No. 1900).
1972	---do-----	-----do	46 53	50 23	Berg (same as No. 1690).
1973	---do-----	-----do	46 58	49 34	Berg (same as No. 1880).
1974	---do-----	-----do	46 35 to 46 43	48 30 to 48 13	Numerous growlers and pieces of field ice.
1975	---do-----	-----do	From 46 52 to 46 55	50 15 to 49 39	Heavy field ice and growlers.
1976	---do-----	USS Edisto	47 11	52 27	Berg (same as No. 1752).
1977	---do-----	-----do	47 15 to Cape Spear	52 30	Strings of field ice.
1978	---do-----	Manchester Port	47 13	49 29	Berg (same as No. 1909).
1979	---do-----	-----do	47 19	49 24	Berg (same as No. 1690).
1980	---do-----	-----do	47 20	49 37	Berg (same as No. 1798).
1981	---do-----	-----do	47 24	49 08	Berg (same as No. 1905).
1982	---do-----	Mackay	47 31	50 10	3 bergs (same as No. 1710).
1983	---do-----	-----do	47 33	49 53	Berg (same as No. 1710).
1984	---do-----	-----do	47 40	50 03	Berg (same as No. 1710).
1985	---do-----	-----do	47 42	50 07	Berg (same as No. 1710).
1986	---do-----	-----do	47 45	50 14	Berg (same as No. 1710).
1987	---do-----	-----do	47 41	49 57	Growler.
1988	---do-----	-----do	47 00 to 47 25	50 50 to 50 15	Scattered pieces heavy field ice.
1989	---do-----	-----do	From 47 45 to 47 17 to 47 00	52 30 to 52 37 to 51 50	Field ice, numerous growlers.
1990	---do-----	USCGC Westwind	48 17	52 23	Heavy field ice, many bergs.
1991	---do-----	Krageholm	43 01	49 46	Growlers.
1992	---do-----	Port Victor	45 48	47 20	Do.
1993	---do-----	Beaverford	46 46	52 25	Growler.
1994	May 25	Magga	46 03	48 16	Berg (same as No. 1915).
1995	---do-----	-----do	46 06	48 28	Berg (same as No. 1915).
1996	---do-----	-----do	46 22	47 50	Berg (same as No. 1915).
1997	---do-----	-----do	46 22	48 03	Berg (same as No. 1915).
1998	---do-----	-----do	46 31 to 46 03	47 17 to 48 44	Scattered growlers and field ice.
1999	---do-----	Beaverdell	46 20	48 39	Berg (same as No. 1810).
2000	---do-----	-----do	46 27 to 46 21	48 27 to 48 40	Scattered field ice.
2001	---do-----	Oslofjord	46 21	48 30	Berg (same as No. 1967).
2002	---do-----	-----do	46 24	48 34	Berg (same as No. 1999).
2003	---do-----	-----do	46 31	48 42	Berg (same as No. 1967).
2004	---do-----	-----do	46 53	48 10	Berg (same as No. 1906).
2005	---do-----	Stavangerfjord	46 34	49 02	Several bergs and growlers (same as No. 1881).
2006	---do-----	-----do	46 15	50 40	3 growlers.
2007	---do-----	Mormacelm	46 52	48 00	Berg (same as No. 2004).
2008	---do-----	Manchester Port	47 08	50 02	Berg (same as No. 1844).
2009	---do-----	-----do	47 12	50 10	Berg (same as No. 1710).
2010	---do-----	-----do	47 25	50 23	Berg (same as No. 1710).
2011	---do-----	-----do	47 27	50 04	Berg (same as No. 1982).
2012	---do-----	-----do	47 28	50 05	Berg (same as No. 1984).
2013	---do-----	-----do	47 29	50 07	2 bergs (same as No. 1982).
2014	---do-----	-----do	47 29	49 58	Berg (same as No. 1983).
2015	---do-----	-----do	47 16	50 15	Growler.
2016	---do-----	-----do	47 20	49 48	Growler.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
2017	...do.....	.....do.....	47	20	49	57	Scattered field ice.
2018	...do.....	USCGC Cook Inlet	44	18	48	41	2 growlers.
2019	...do.....	Rigmor Nielson	46	15	48	52	Growlers.
2020	...do.....	.....do.....	45	57	49	46	Do.
2021	May 26	Ice Patrol plane	42	17	50	33	Berg (same as No. 1920).
2022	...do.....	.....do.....	43	03	49	59	Berg (same as No. 1921).
2023	...do.....	.....do.....	46	39	53	29	Berg (same as No. 1750).
2024	...do.....	Ice Patrol vessel	42	33	51	01	Berg (same as No. 2021).
2025	...do.....	MATS plane	42	30	50	00	Berg (same as No. 2024).
2026	...do.....	Tyria	45	00	48	57	Berg (same as No. 1942).
2027	...do.....	.....do.....	45	12	49	31	Berg (same as No. 1943).
2028	...do.....	.....do.....	45	15	48	58	Berg (same as No. 1944).
2029	...do.....	.....do.....	45	16	48	37	Berg (same as No. 1946).
2030	...do.....	.....do.....	45	20	48	42	Berg (same as No. 1947).
2031	...do.....	.....do.....	45	04	48	41	Growler.
2032	...do.....	.....do.....	45	04	48	47	Do.
2033	...do.....	.....do.....	45	04	49	20	Do.
2034	...do.....	.....do.....	45	05	49	10	Do.
2035	...do.....	.....do.....	45	06	48	42	Do.
2036	...do.....	.....do.....	45	18	49	25	Do.
2037	...do.....	Welheim	45	09	49	20	Berg (same as No. 2037).
2038	...do.....	.....do.....	45	17	49	17	Berg (same as No. 1945).
2039	...do.....	.....do.....	45	19	49	00	Berg (same as No. 2029).
2040	...do.....	Unidentified vessel	45	19	48	31	Berg (same as No. 1915).
2041	...do.....	.....do.....	45	20	48	38	Berg (same as No. 2040).
2042	...do.....	.....do.....	45	32	48	39	Growler.
2043	...do.....	.....do.....	45	36	48	36	Do.
2044	...do.....	.....do.....	45	18	48	32	Do.
2045	...do.....	Transpacific	46	17	52	24	Berg (same as No. 1966).
2046	...do.....	.....do.....	46	23	48	40	Berg (same as No. 2003).
2047	...do.....	.....do.....	46	25	48	46	Berg (same as No. 2005).
2048	...do.....	.....do.....	46	34	48	48	Berg (same as No. 1907).
2049	...do.....	.....do.....	46	38	48	28	Berg (same as No. 1904).
2050	...do.....	Cedar Trader	46	21	52	19	Berg (same as No. 2045).
2051	...do.....	Ingleby	47	00	51	57	2 bergs (same as Nos. 1875 and 1901).
2052	...do.....	Prins Casimir	43	16	49	29	Growler.
2053	...do.....	Ice Patrol vessel	42	28	50	58	Berg (same as No. 2024).
2054	...do.....	Desdemona	44	40	48	45	Berg (same as No. 1931).
2055	...do.....	.....do.....	44	45	48	40	Berg (same as No. 1934).
2056	...do.....	Ragneborg	Between lats. 44°51′ N. and 45°15′ N. and longs. 48°38′ W. and 49°13′ W.				Many growlers.
2057	...do.....	San Roque	45	07	49	14	Berg (same as No. 2039).
2058	...do.....	.....do.....	45	09	48	45	Berg (same as No. 1941).
2059	...do.....	.....do.....	45	11	48	35	Berg (same as No. 1915).
2060	...do.....	.....do.....	45	13	49	02	Berg (same as No. 2028).
2061	...do.....	.....do.....	45	20	49	25	Berg (same as No. 1863).
2062	...do.....	.....do.....	45	23	49	20	Berg (same as No. 1864).
2063	...do.....	Caslon	45	31	48	45	2 bergs (same as Nos. 1948 and 1994).
2064	...do.....	Unidentified vessel	45	40	48	50	Berg (same as No. 1995).
2065	...do.....	.....do.....	45	36	48	54	Many growlers.
2066	...do.....	Carinthia	46	13	48	53	Berg (same as No. 2001).
2067	May 27	.....do.....	46	22	52	30	Berg (same as No. 2050).
2068	...do.....	.....do.....	47	06	47	55	Berg (same as No. 1847).
2069	...do.....	.....do.....	46	49	48	20	Growlers.
2070	...do.....	.....do.....	46 55 to 46 40		48 35 to 48 40		Many growlers.
2071	...do.....	USS Edisto	Between St. John's Harbor and 47 55		52 09		15 bergs, numerous growlers.
2072	...do.....	.....do.....	48	25	51	22	Heavy field ice.
2073	...do.....	Alcoutim	47	50	49	30	Berg.
2074	...do.....	.....do.....	47	50	51	00	Do.
2075	...do.....	Unidentified plane	47	50	49	55	Do.
2076	...do.....	Irish Poplar	Within 10 mile radius of 42 33		49 56		Numerous growlers.
2077	...do.....	USNS Sagitta	46	40	52	26	Numerous growlers.
2078	...do.....	USNS Marine Carp	48	06	51	17	Heavy field ice.
2079	May 28	Ice Patrol vessel	42	20	50	35	Berg (same as No. 2053).
2080	...do.....	Alexandra Sartori	44	40	46	56	Berg (same as No. 1851).
2081	...do.....	Othon	45	20	48	45	Berg (same as No. 2030).
2082	...do.....	Groote Beer	46	39	51	39	Berg (same as No. 1969).
2083	...do.....	.....do.....	46	53	48	44	Berg (same as No. 1908).
2084	...do.....	.....do.....	46	56	48	51	Berg (same as No. 1978).
2085	...do.....	.....do.....	47	00	48	45	Berg (same as No. 1843).
2086	...do.....	.....do.....	47	00	48	55	Berg (same as No. 1980).
2087	...do.....	Mackay	47	26	49	57	Berg (same as No. 2013).

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
2088	---do-----	-----do------------------	47	39	49	38	Berg (same as No. 2073).
2089	---do-----	-----do------------------	47	47	49	22	Berg (same as No. 1986).
2090	---do-----	USNS Sagitta-------------	47	46	49	48	Berg (same as No. 2089).
2091	---do-----	Port Quebec--------------	49	02	58	47	Berg (same as No. 1883).
2092	---do-----	Baron Renfrew------------	48	25	50	42	Open pack ice.
2093	---do-----	USNS Marine Carp---------	48	32	51	25	Light field ice.
2094	---do-----	-----do------------------	48	44	51	00	Field ice.
2095	May 29	Ice Patrol vessel--------	42	42	51	04	Berg (same as No. 2079).
2096	---do-----	Rigoletto----------------	44	39	46	50	2 bergs (same as No. 2080).
2097	---do-----	Empress of Scotland------	46	10	52	19	Berg (same as No. 1896).
2098	---do-----	-----do------------------	46	13	52	05	Berg (same as No. 1962).
2099	---do-----	-----do------------------	46	13	52	12	Do.
2100	---do-----	-----do------------------	46	17	52	11	Do.
2101	---do-----	-----do------------------	46	18	52	11	Berg (same as No. 2067).
2102	---do-----	-----do------------------	46	39	48	33	Berg (same as No. 2084).
2103	---do-----	-----do------------------	46	42	48	38	Berg (same as No. 2085).
2104	---do-----	-----do------------------	46	46	48	43	Berg (same as No. 2086).
2105	---do-----	-----do------------------	46	47	48	31	Berg (same as No. 2083).
2106	---do-----	-----do------------------	47	00	47	37	Berg (same as No. 2068).
2107	---do-----	-----do------------------	47	00	48	00	Berg (same as No. 1845).
2108	---do-----	Unidentified vessel------	49	05	58	46	Berg.
2109	May 30	Ice Patrol plane---------	42	39	50	26	Berg (same as No. 2022).
2110	---do-----	-----do------------------	43	01	50	15	Berg (same as No. 1922).
2111	---do-----	-----do------------------	43	09	50	01	Berg (same as No. 1925).
2112	---do-----	-----do------------------	46	28	52	23	Berg (same as No. 2101).
2113	---do-----	-----do------------------	46	33	52	13	Berg (same as No. 1896).
2114	---do-----	-----do------------------	46	58	52	44	Berg (same as No. 1976).
2115	---do-----	Ice Patrol vessel--------	42	41	50	40	Berg (same as No. 1924).
2116	---do-----	-----do------------------	42	58	50	36	2 bergs (same as No. 2095).
2117	---do-----	Mormacpine---------------	43	49	49	00	Berg (same as No. 1926).
2118	---do-----	Columbia-----------------	44	02	48	12	Berg (same as No. 1923).
2119	---do-----	Drum Major---------------	45	31	48	52	Berg (same as No. 2064).
2120	---do-----	Empress of England-------	46	32	52	05	Berg (same as No. 2112).
2121	---do-----	Newfoundland-------------	47	05	51	50	2 bergs (same as Nos. 1902 and 1903).
2122	---do-----	-----do------------------	47	35	52	39	2 bergs (same as No. 2071).
2123	---do-----	Unidentified vessel------	47	05	51	52	Berg (same as No. 1898).
2124	---do-----	Despina------------------	47	40	49	00	4 bergs, numerous growlers (same as Nos. 2088, 2089 and 2090).
2125	---do-----	Alcoutim-----------------	Vicinity of 48	00	51	19	Numerous bergs, growlers, and field ice.
2126	May 31	Ice Patrol plane---------	42	46	49	20	Berg (same as No. 1929).
2127	---do-----	-----do------------------	42	46	51	10	Berg (same as No. 2116).
2128	---do-----	-----do------------------	42	51	51	01	Berg (same as No. 2116).
2129	---do-----	-----do------------------	42	56	50	27	Berg (same as No. 2110).
2130	---do-----	-----do------------------	43	04	50	22	Berg (same as No. 2111).
2131	---do-----	-----do------------------	43	06	49	38	Berg (same as No. 1930).
2132	---do-----	-----do------------------	43	15	51	03	Berg (same as No. 1927).
2133	---do-----	-----do------------------	43	17	51	02	Berg (same as No. 1928).
2134	---do-----	-----do------------------	43	28	49	04	Berg (same as No. 2117).
2135	---do-----	-----do------------------	43	30	48	31	Berg (same as No. 1933).
2136	---do-----	-----do------------------	43	30	48	45	Berg (same as No. 1932).
2137	---do-----	-----do------------------	43	31	49	16	Berg (same as No. 1935).
2138	---do-----	-----do------------------	46	34	52	04	Berg (same as No. 2120).
2139	---do-----	-----do------------------	46	39	51	49	Berg (same as No. 2082).
2140	---do-----	-----do------------------	46	39	53	05	Berg.
2141	---do-----	-----do------------------	46	40	53	01	Do.
2142	---do-----	-----do------------------	46	53	52	53	Berg (same as No. 2114).
2143	---do-----	-----do------------------	Vicinity of 43	30	48	30	Numerous growlers.
2144	---do-----	-----do------------------	Vicinity of 42	48	52	25	Do.
2145	---do-----	-----do------------------	42	59	50	21	Large growler.
2146	---do-----	Ice Patrol vessel--------	42	42	50	21	Berg (same as No. 2115).
2147	---do-----	-----do------------------	42	43	50	23	Berg (same as No. 2116).
2148	---do-----	Leanna-------------------	44	22	47	58	Berg, numerous growlers (same as No. 2135).
2149	---do-----	-----do------------------	44	33	48	38	Berg (same as No. 2054).
2150	---do-----	Montana------------------	44	28	48	30	Berg (same as No. 2055).
2151	---do-----	Unidentified vessel------	45	22	48	52	Berg (same as No. 2081).
2152	---do-----	-----do------------------	45	36	48	24	3 bergs.
2153	---do-----	Homeric------------------	45	37	49	00	Berg (same as No. 2066).
2154	---do-----	Dencraig-----------------	45	49	48	53	Berg (same as No. 1999).
2155	---do-----	-----do------------------	46	02	48	41	Berg (same as No. 2046).
2156	---do-----	Beavercove---------------	46	02	48	32	Berg (same as No. 2155).
2157	---do-----	-----do------------------	46	10	48	17	Berg (same as No. 1997).
2158	---do-----	-----do------------------	46	25	48	10	Berg (same as No. 1915).
2159	---do-----	-----do------------------	46	25	48	12	Berg (same as No. 1915).
2160	---do-----	-----do------------------	46	35	48	21	Berg (same as No. 2047).
2161	---do-----	-----do------------------	46	34	47	35	Growler.

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
2162	---do-----	Bergensfjord	Between 46 28 and 46 55	48 40 47 25	7 bergs (same as Nos. 2048, 2049, 2103 and 2160).
2163	---do-----	USS Seneca	46 38	46 50	Berg (same as No. 1911).
2164	---do-----	Empress of Britain	46 44	48 32	Berg (same as No. 2105).
2165	---do-----	-----do	46 48	48 16	Berg (same as No. 2007).
2166	---do-----	-----do	46 48	48 32	Berg (same as No. 2104).
2167	---do-----	-----do	46 56	47 35	Berg (same as No. 2106).
2168	---do-----	Beaverlake	46 43	48 32	Berg (same as No. 2005).
2169	---do-----	-----do	46 46	48 22	Berg (same as No. 2165).
2170	---do-----	-----do	46 46	48 46	Berg (same as No. 2164).
2171	---do-----	-----do	46 47	48 37	Berg (same as No. 2005).
2172	---do-----	-----do	46 47	48 16	Berg (same as No. 2193).
2173	---do-----	-----do	46 48	48 08	Do.
2174	---do-----	-----do	46 50	48 38	Berg (same as No. 2166).
2175	---do-----	-----do	46 50	48 29	Berg
2176	---do-----	-----do	46 50	48 18	Berg (same as No. 2193).
2177	---do-----	-----do	46 52	48 20	Do.
2178	---do-----	-----do	46 53	48 00	Do.
2179	---do-----	-----do	46 57	48 28	Berg (same as No. 2192).
2180	---do-----	-----do	46 57	47 51	Berg (same as No. 2013).
2181	---do-----	-----do	47 02	48 21	Berg (same as No. 2193).
2182	---do-----	-----do	47 03	47 48	Berg (same as No. 2012).
2183	---do-----	-----do	47 03	47 55	Berg (same as No. 2008).
2184	---do-----	-----do	47 10	49 02	Berg (same as No. 2014).
2185	---do-----	-----do	47 15	47 42	Berg.
2186	---do-----	-----do	47 17	47 02	Berg and numerous growlers.
2187	---do-----	-----do	46 43	48 32	Growler.
2188	---do-----	-----do	46 48	48 20	Do.
2189	---do-----	-----do	46 50	48 18	Do.
2190	---do-----	-----do	Between 47 03 and 47 10	48 02 47 55	Numerous growlers and scattered field ice.
2191	---do-----	Bergensfjord	47 00	47 30	2 bergs (same as No. 2162).
2192	---do-----	Newfoundland	47 00	49 00	Berg (same as No. 1973).
2193	---do-----	-----do	From within 6 miles of 47 07 to 47 07	47 47 48 34	6 bergs (same as No. 2107).
2194	---do-----	Trondheim	47 41	48 12	Berg.
2195	---do-----	Parkgate	47 50 to northward	51 00	Field ice containing numerous bergs.
2196	---do-----	Olga	Within 15-mile radius of 48 10	48 50	7 bergs.
2197	---do-----	Quebec	49 09	58 36	Berg.
2198	---do-----	-----do	49 10	58 40	Do.
2199	June 1	Ice Patrol plane	46 35	51 58	Berg (same as No. 2113).
2200	---do-----	-----do	46 45	51 42	Berg (same as No. 2377).
2201	---do-----	-----do	46 50	47 12	Berg (same as No. 2167).
2202	---do-----	-----do	46 52	48 00	Berg (same as No. 2162).
2203	---do-----	-----do	46 53	48 33	Berg (same as No. 2179).
2204	---do-----	-----do	46 57	47 37	Berg (same as No. 2185).
2205	---do-----	-----do	46 57	49 10	Berg.
2206	---do-----	-----do	46 58	48 00	Berg (same as No. 2184).
2207	---do-----	-----do	46 58	48 16	Berg (same as No. 2193).
2208	---do-----	-----do	47 00	48 17	Berg.
2209	---do-----	-----do	47 01	49 03	Do.
2210	---do-----	-----do	47 01	52 00	Berg (same as No. 2051).
2211	---do-----	-----do	47 02	52 50	Berg (same as No. 2142).
2212	---do-----	-----do	47 05	48 11	Berg.
2213	---do-----	-----do	47 10	47 10	Berg (same as No. 2186).
2214	---do-----	-----do	47 12	48 00	Berg.
2215	---do-----	-----do	47 14	48 40	Do.
2216	---do-----	-----do	47 17	48 30	Berg (same as No. 2124).
2217	---do-----	-----do	47 19	47 52	Berg.
2218	---do-----	-----do	47 19	49 35	Berg (same as No. 2124).
2219	---do-----	-----do	47 20	47 36	Berg.
2220	---do-----	-----do	47 23	48 44	Do.
2221	---do-----	-----do	47 26	52 06	Berg (same as No. 2071).
2222	---do-----	-----do	47 27	51 45	Do.
2223	---do-----	-----do	47 28	48 52	Berg.
2224	---do-----	-----do	47 28	50 48	Berg (same as No. 2074).
2225	---do-----	-----do	47 29	49 23	Berg.
2226	---do-----	-----do	47 29	50 38	Berg (same as No. 2125).
2227	---do-----	-----do	47 30	48 23	Berg (same as No. 2194).
2228	---do-----	-----do	47 31	51 45	Berg (same as No. 2071).
2229	---do-----	-----do	47 32	49 11	Berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
2230	...do....	.....do....	47 32	50 46	Berg (same as No. 2125).
2231	...do....	.....do....	47 33	52 07	Berg (same as No. 2071).
2232	...do....	.....do....	47 34	51 48	Do.
2233	...do....	.....do....	47 35	51 45	3 bergs (same as No. 2071).
2234	...do....	.....do....	47 36	48 57	Berg.
2235	...do....	.....do....	47 36	51 04	Berg (same as No. 2125).
2236	...do....	.....do....	47 37	51 40	Berg (same as No. 2071).
2237	...do....	.....do....	47 37	52 27	Do.
2238	...do....	.....do....	47 38	50 15	Berg (same as No. 2125).
2239	...do....	.....do....	47 38	51 42	Berg (same as No. 2125).
2240	...do....	.....do....	47 40	48 39	Berg (same as No. 2124).
2241	...do....	.....do....	47 40	49 08	Berg.
2242	...do....	.....do....	47 40	51 42	Berg (same as No. 2125).
2243	...do....	.....do....	47 40	51 45	Berg (same as No. 2071).
2244	...do....	.....do....	47 40	52 18	Do.
2245	...do....	.....do....	47 41	49 04	Berg.
2246	...do....	.....do....	47 42	47 52	Do.
2247	...do....	.....do....	47 42	52 30	Berg (same as No. 2071).
2248	...do....	.....do....	47 43	51 40	Berg.
2249	...do....	.....do....	47 44	49 13	Do.
2250	...do....	.....do....	47 44	49 39	Do.
2251	...do....	.....do....	47 45	49 15	Do.
2252	...do....	.....do....	47 45	49 50	Do.
2253	...do....	.....do....	47 45	51 37	Do.
2254	...do....	.....do....	47 48	49 24	Do.
2255	...do....	.....do....	47 48	49 28	Do.
2256	...do....	.....do....	47 48	50 03	Berg (same as No. 2195).
2257	...do....	.....do....	47 48	50 10	Do.
2258	...do....	.....do....	47 52	49 36	Berg.
2259	...do....	.....do....	47 52	49 40	Do.
2260	...do....	.....do....	47 54	52 45	Berg (same as No. 2071).
2261	...do....	.....do....	From 47 50 to 47 40 to 47 50 to northwestward	52 40 to 52 30 to 48 50	Southern field ice limits.
2262	...do....	Ice Patrol vessel....	42 42	51 27	Berg (same as No. 2146).
2263	...do....	.....do....	42 46	51 29	Berg (same as No. 2147).
2264	...do....	Elsbeth Wiards....	44 15	46 37	Berg and many growlers (same as No. 2096).
2265	...do....	.....do....	44 21	48 35	Berg (same as No. 2149).
2266	...do....	.....do....	44 25	46 14	Berg (same as No. 1937).
2267	...do....	Paul Honold....	44 28	46 32	Berg (same as No. 1936).
2268	...do....	.....do....	44 35	48 21	Berg (same as No. 2150).
2269	...do....	.....do....	44 46	48 25	Berg (same as No. 1938).
2270	...do....	.....do....	45 03	49 19	Berg (same as No. 2047).
2271	...do....	Gripsholm....	44 30	46 05	Berg (same as No. 2096).
2272	...do....	.....do....	44 28	46 04	Growlers.
2273	...do....	Christian Sartori....	45 20	48 36	Berg (same as No. 2152).
2274	...do....	.....do....	45 21	48 52	Berg (same as No. 2151).
2275	...do....	Gilleannes....	46 25	51 48	Berg (same as No. 2138).
2276	...do....	Vilarinho....	46 26	51 50	Berg (same as No. 2275).
2277	...do....	Trondheim....	46 37	51 40	Berg (same as No. 2139).
2278	...do....	.....do....	46 44	51 28	Berg (same as No. 1971).
2279	...do....	.....do....	47 02	51 53	Berg (same as No. 2210).
2280	...do....	.....do....	47 06	51 46	Berg (same as No. 2121).
2281	...do....	.....do....	47 17	49 24	Berg (same as No. 2218).
2282	...do....	.....do....	47 25	48 25	Berg (same as No. 2216).
2283	...do....	.....do....	47 26	49 16	Berg.
2284	...do....	.....do....	47 30	48 47	Berg (same as No. 2215).
2285	...do....	.....do....	47 35	48 28	Berg (same as No. 2227).
2286	...do....	.....do....	47 35	48 32	Berg (same as No. 2124).
2287	...do....	.....do....	47 37	48 47	Berg (same as No. 2234).
2288	...do....	.....do....	47 38	48 51	Berg (same as No. 2229).
2289	...do....	.....do....	47 45	48 34	Berg (same as No. 2240).
2290	...do....	Beaverburn....	46 47	48 31	Berg (same as No. 2175).
2291	...do....	.....do....	46 54	49 00	Berg (same as No. 2087).
2292	...do....	.....do....	46 56	48 07	Berg (same as No. 2206).
2293	...do....	.....do....	46 58	47 58	Berg (same as No. 2180).
2294	...do....	.....do....	47 00	48 50	Berg (same as No. 2209).
2295	...do....	.....do....	47 10	48 26	Berg (same as No. 2208).
2296	...do....	.....do....	47 10	48 36	Berg (same as No. 2193).
2297	...do....	.....do....	47 11	48 31	Berg (same as No. 2215).
2298	...do....	.....do....	47 20	48 28	Berg (same as No. 2227).
2299	...do....	Lismoria....	46 52	49 07	Berg (same as No. 2009).
2300	...do....	.....do....	46 55	48 57	Berg (same as No. 2291).
2301	...do....	.....do....	47 08	48 38	Berg (same as No. 2296).
2302	...do....	.....do....	47 10	48 45	Berg (same as No. 2010).
2303	...do....	.....do....	47 10	48 49	Berg (same as No. 2011).

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
2304	---do-----	-----do------------------	47	15	47	57	Berg (same as No. 2214).
2305	---do-----	-----do------------------	47	16	47	50	Berg (same as No. 2219).
2306	---do-----	-----do------------------	47	20	48	42	Berg (same as No. 2215).
2307	---do-----	-----do------------------	47	22	48	19	Berg (same as No. 2298).
2308	---do-----	Carita-------------------	47	00	51	58	Berg (same as No. 2121).
2309	---do-----	Blairspey----------------	47	24	47	50	Berg (same as No. 2217).
2310	---do-----	-----do------------------	47	26	48	43	Berg (same as No. 2223).
2311	---do-----	-----do------------------	47	39	48	24	Berg (same as No. 2286).
2312	---do-----	-----do------------------	47	42	48	50	Berg (same as No. 2245).
2313	---do-----	-----do------------------	47	42	48	52	Berg (same as No. 2241).
2314	---do-----	Nova Scotia--------------	47	29	52	35	Berg (same as No. 2122).
2315	---do-----	Atlanta------------------	44	45	49	00	Growler.
2316	---do-----	Anastassios Pateras------	47	53	50	34	Several bergs (same as Nos. 2256, 2257 and 2195).
2317	June 2	Ice Patrol vessel--------	42	55	51	40	2 bergs (same as Nos. 2262 and 2263).
2318	---do-----	Wind---------------------	43	00	49	00	Berg (same as No. 2134).
2319	---do-----	Oakby--------------------	43	17	48	52	Berg (same as No. 2136).
2320	---do-----	Gertrud Torm-------------	44	50	49	15	Berg (same as No. 2270).
2321	---do-----	-----do------------------	44	51	49	40	Berg (same as No. 2037).
2322	---do-----	-----do------------------	45	05	49	10	Berg (same as No. 2060).
2323	---do-----	Prins Philips Willem-----	45	00	49	09	Berg (same as No. 2026).
2324	---do-----	-----do------------------	45	07	48	44	Berg (same as No. 2058).
2325	---do-----	-----do------------------	45	18	49	15	Berg (same as No. 2061).
2326	---do-----	Poseidon-----------------	45	53	48	48	5 bergs (same as Nos. 2155, 2154, 2153, 2157 and 2062).
2327	---do-----	-----do------------------	46	18	47	38	Berg (same as No. 2193).
2328	---do-----	New York-----------------	46	27	48	04	Berg (same as No. 2194).
2329	---do-----	-----do------------------	46	28	47	54	Berg (same as No. 2178).
2330	---do-----	-----do------------------	46	31	48	14	Berg (same as No. 2169).
2331	---do-----	-----do------------------	46	34	47	54	Berg (same as No. 2189).
2332	---do-----	-----do------------------	46	35	48	16	Berg (same as No. 2177).
2333	---do-----	-----do------------------	46	36	47	45	Berg (same as No. 2183).
2334	---do-----	-----do------------------	46	38	48	14	Berg (same as No. 2172).
2335	---do-----	USNS J. E. Kelley--------	46	34	52	50	Berg.
2336	---do-----	-----do------------------	46	41	52	51	Berg (same as No. 2141).
2337	---do-----	-----do------------------	47	02	52	49	Berg (same as No. 2211).
2338	---do-----	-----do------------------	47	26	52	34	Berg (same as No. 2314).
2339	---do-----	-----do------------------	47	31	52	19	Berg (same as No. 2237).
2340	---do-----	-----do------------------	47	34	52	18	Berg (same as No. 2244).
2341	---do-----	-----do------------------	47	37	52	21	Berg (same as No. 2247).
2342	---do-----	-----do------------------	47	38	52	24	Berg (same as No. 2231).
2343	---do-----	Nova Scotia--------------	46	43	52	51	Berg (same as No. 2336).
2344	---do-----	Carita-------------------	46	58	48	15	2 bergs (same as Nos. 2307 and 2312).
2345	---do-----	Saxonia------------------	47	58	49	52	Field ice.
2346	June 3	Ice Patrol vessel--------	43	02	52	42	Berg (same as No. 2317).
2347	---do-----	Italia-------------------	43	47	48	00	Berg (same as No. 2134).
2348	---do-----	USCGC Escanaba-----------	43	57	47	29	Berg and growlers (same as No. 1939).
2349	---do-----	Italia-------------------	43	59	47	10	Berg (same as No. 2348).
2350	---do-----	Orpheus------------------	44	15	46	13	Berg (same as No. 2264).
2351	---do-----	Stavangerfjord-----------	46	25	52	22	Berg (same as No. 2101).
2352	---do-----	-----do------------------	46	31	51	52	Berg (same as No. 2199).
2353	---do-----	Carinthia----------------	46	32	48	09	Berg (same as No. 2302).
2354	---do-----	-----do------------------	46	33	48	07	Berg (same as No. 2292).
2355	---do-----	-----do------------------	46	41	48	02	2 bergs (same as No. 2344).
2356	---do-----	Carita-------------------	46	47	47	38	Berg (same as No. 2204).
2357	---do-----	-----do------------------	47	00	47	48	Berg (same as No. 2304).
2358	---do-----	-----do------------------	47	01	47	15	Berg (same as No. 2313).
2359	June 4	Ice Patrol plane---------	42	47	50	06	Berg (same as No. 2131).
2360	---do-----	-----do------------------	43	24	48	55	Berg (same as No. 2319).
2361	---do-----	-----do------------------	43	58	49	18	Berg (same as No. 2059).
2362	---do-----	-----do------------------	46	28	51	40	Berg (same as No. 2276).
2363	---do-----	-----do------------------	46	44	53	01	Berg (same as No. 2140).
2364	---do-----	-----do------------------	46	47	52	58	Berg (same as No. 2337).
2365	---do-----	-----do------------------	46	48	51	31	Berg (same as No. 2278).
2366	---do-----	-----do------------------	47	03	52	50	Berg.
2367	---do-----	-----do------------------	47	09	52	47	Do.
2368	---do-----	-----do------------------	47	15	52	44	Berg (same as No. 2338).
2369	---do-----	-----do------------------	46	23	52	45	Growler.
2370	---do-----	Ice Patrol vessel--------	42	42	52	51	Berg (same as No. 2346).
2371	---do-----	Kungsholm----------------	42	49	52	58	Berg (same as No. 2370).
2372	---do-----	Arosa Star---------------	43	43	48	27	Berg (same as No. 1940).
2373	---do-----	Berni Nuebel-------------	44	00	49	16	Berg and growlers (same as No. 2361).
2374	---do-----	-----do------------------	44	03	48	31	Berg (same as No. 1961).
2375	---do-----	Italia-------------------	44	15	46	08	Berg (same as No. 2350).
2376	---do-----	-----do------------------	44	25	45	38	Berg (same as No. 2271).
2377	---do-----	-----do------------------	44	13	46	14	Growler.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
2378	---do-----	Cleopatra	45	11	48	58	5 bergs (same as Nos. 2040, 2063, 2081, 2273 and 2322).
2379	---do-----	Empress of England	46	31	51	57	Berg (same as No. 2352).
2380	---do-----	-----do	46	46	51	48	Berg (same as No. 2200).
2381	---do-----	-----do	47	06	51	53	Berg (same as No. 2280).
2382	---do-----	-----do	47	18	49	34	Berg (same as No. 2218).
2383	---do-----	Beaverlodge	46	32	48	06	Berg (same as No. 2353).
2384	---do-----	Clintonia	46	41	48	05	Berg (same as No. 2355).
2385	---do-----	-----do	46	44	47	05	Berg (same as No. 2201).
2386	---do-----	Durham Trader	46	42	47	46	Berg (same as No. 2206).
2387	---do-----	-----do	46	47	47	54	Berg (same as No. 2357).
2388	---do-----	-----do	46	50	47	49	Berg (same as No. 2356).
2389	---do-----	-----do	46	50	48	33	Berg (same as No. 2203).
2390	---do-----	-----do	47	07	47	30	Berg (same as No. 2305).
2391	---do-----	-----do	46	05	48	01	Growler.
2392	---do-----	-----do	46	44	47	59	Do.
2393	---do-----	Unidentified vessel	47	03	47	30	Berg (same as No. 2389).
2394	---do-----	Dundee	47	05	52	50	Berg (same as No. 2366).
2395	---do-----	-----do	47	27	52	31	Berg (same as No. 2339).
2396	June 5	Ice Patrol plane	42	47	50	18	Berg (same as No. 2359).
2397	---do-----	-----do	43	03	51	51	Berg (same as No. 2128).
2398	---do-----	-----do	43	05	50	48	Berg (same as No. 2129).
2399	---do-----	-----do	43	05	50	50	Berg (same as No. 2130).
2400	---do-----	-----do	43	20	48	45	Berg (same as No. 2318).
2401	---do-----	-----do	43	25	49	12	Berg (same as No. 2360).
2402	---do-----	-----do	43	53	49	15	Berg (same as No. 2361).
2403	---do-----	-----do	43	58	48	30	Berg (same as No. 2159).
2404	---do-----	-----do	44	07	48	21	Berg (same as No. 2327).
2405	---do-----	-----do	44	48	48	56	Berg (same as No. 2324).
2406	---do-----	-----do	44	55	49	00	Berg (same as No. 2323).
2407	---do-----	-----do	44	55	49	40	Berg (same as No. 2321).
2408	---do-----	-----do	45	02	49	13	Berg (same as No. 2378).
2409	---do-----	-----do	45	17	49	02	Berg (same as No. 2378).
2410	---do-----	-----do	45	20	48	10	Berg (same as No. 2152).
2411	---do-----	-----do	45	21	49	10	2 bergs (same as Nos. 2325 and 2378).
2412	---do-----	-----do	45	22	49	15	Berg (same as No. 2152).
2413	---do-----	-----do	45	26	48	33	Berg (same as No. 2326).
2414	---do-----	-----do	45	34	48	59	Berg (same as No. 2326).
2415	---do-----	-----do	46	30	52	05	Berg (same as No. 2379).
2416	---do-----	-----do	46	43	52	00	Berg (same as No. 2430).
2417	---do-----	-----do	42	58	50	23	Growler.
2418	---do-----	-----do	43	00	50	58	Do.
2419	---do-----	-----do	43	15	49	45	Do.
2420	---do-----	Ice Patrol vessel	42	30	52	33	Berg (same as No. 2370).
2421	---do-----	USCGC Owasco	43	44	48	55	Berg (same as No. 2401).
2422	---do-----	-----do	43	55	49	15	Berg (same as No. 2402).
2423	---do-----	-----do	44	00	48	22	Berg (same as No. 2372).
2424	---do-----	Arosa Sun	45	45	48	40	2 bergs (same as No. 2326).
2425	---do-----	-----do	45	48	48	29	Berg (same as No. 2328).
2426	---do-----	-----do	46	11	48	02	2 bergs (same as Nos. 2327 and 2158).
2427	---do-----	-----do	46	12	48	18	Berg (same as No. 2159).
2428	---do-----	Robert Crain	46	00	48	06	6 bergs (same as Nos. 2168, 2170, 2425 and 2427).
2429	---do-----	Rossetti	46	32	51	44	Berg (same as No. 2362).
2430	---do-----	-----do	46	39	51	41	Berg (same as No. 2380).
2431	---do-----	-----do	46	59	48	40	Berg (same as No. 2302).
2432	---do-----	-----do	47	02	49	17	Berg (same as No. 2254).
2433	---do-----	-----do	47	05	48	52	Berg (same as No. 2223).
2434	---do-----	-----do	47	06	48	47	Berg (same as No. 2303).
2435	---do-----	-----do	47	07	49	40	Berg (same as No. 2250).
2436	---do-----	-----do	47	11	48	37	Berg (same as No. 2215).
2437	---do-----	-----do	47	15	49	09	Berg (same as No. 2249).
2438	---do-----	-----do	47	18	49	05	Berg (same as No. 2251).
2439	---do-----	-----do	47	22	49	25	Berg (same as No. 2255).
2440	---do-----	-----do	47	26	48	50	Berg (same as No. 2234).
2441	---do-----	-----do	47	32	48	39	Berg (same as No. 2288).
2442	---do-----	Unidentified vessel	46	39	48	21	Berg (same as No. 2290).
2443	---do-----	-----do	46	46	48	39	Berg (same as No. 2166).
2444	---do-----	-----do	46	59	48	48	Berg (same as No. 2294).
2445	---do-----	-----do	47	05	47	47	Berg (same as No. 2307).
2446	---do-----	-----do	47	10	48	30	Berg (same as No. 2297).
2447	---do-----	Fidentia	46	43	51	40	Berg (same as No. 2365).
2448	---do-----	-----do	47	08	49	15	Berg (same as No. 2225).
2449	---do-----	-----do	47	14	49	14	Berg (same as No. 2283).
2450	---do-----	-----do	47	14	51	31	Berg (same as No. 2222).
2451	---do-----	-----do	47	16	49	25	Berg (same as No. 2382).
2452	---do-----	-----do	47	21	48	48	Berg (same as No. 2220).
2453	---do-----	-----do	47	25	49	16	Berg (same as No. 2229).
2454	---do-----	-----do	47	26	48	31	Berg (same as No. 2289).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
2455	---do-----	-----do-----	47 30	48 38	Berg (same as No. 2441).
2456	---do-----	-----do-----	47 35	49 52	Berg (same as No. 2256).
2457	---do-----	Manchester Pioneer	46 41	48 17	Berg (same as No. 2311).
2458	---do-----	-----do-----	46 49	47 20	Berg (same as No. 2358).
2459	---do-----	-----do-----	46 49	48 32	Berg (same as No. 2390).
2460	---do-----	-----do-----	46 55	47 48	Berg (same as No. 2309).
2461	---do-----	-----do-----	46 58	47 30	Berg (same as No. 2393).
2462	---do-----	-----do-----	47 00	47 57	Berg (same as No. 2445).
2463	---do-----	Sapho	48 01	50 02	Southern field ice limits with many bergs.
2464	June 6	Ice Patrol vessel	42 24	52 30	Berg (same as No. 2420).
2465	---do-----	Erholm	44 18	48 38	Berg (same as No. 2405).
2466	---do-----	-----do-----	44 28	46 50	Berg (same as No. 2267).
2467	---do-----	Lakonia	46 20	47 50	Berg (same as No. 2329).
2468	---do-----	-----do-----	46 20	47 52	Berg (same as No. 2330).
2469	---do-----	-----do-----	46 23	47 30	Berg (same as No. 2333).
2470	---do-----	Anastassios Pateras	47 03	48 20	Berg (same as No. 2296).
2471	---do-----	-----do-----	47 05	47 08	Berg (same as No. 2246).
2472	---do-----	-----do-----	47 05	49 00	Berg (same as No. 2433).
2473	---do-----	Empress of Scotland	47 11	51 44	Berg (same as No. 2450).
2474	---do-----	-----do-----	47 13	51 47	Berg (same as No. 2221).
2475	June 7	Ice Patrol plane	42 54	49 54	Berg (same as No. 2400).
2476	---do-----	-----do-----	42 55	50 05	Berg (same as No. 2401).
2477	---do-----	-----do-----	42 58	50 40	Berg (same as No. 2396).
2478	---do-----	-----do-----	43 12	50 45	Berg (same as No. 2398).
2479	---do-----	-----do-----	43 13	50 50	Berg (same as No. 2399).
2480	---do-----	-----do-----	43 38	49 21	Berg (same as No. 2402).
2481	---do-----	-----do-----	43 46	48 43	Berg (same as No. 2403).
2482	---do-----	-----do-----	43 48	47 53	Berg (same as No. 2347).
2483	---do-----	-----do-----	43 56	46 20	Berg (same as No. 2349).
2484	---do-----	-----do-----	43 58	48 07	Berg (same as No. 2404).
2485	---do-----	-----do-----	44 01	48 01	Berg (same as No. 2465).
2486	---do-----	-----do-----	44 25	47 29	Berg (same as No. 2466).
2487	---do-----	-----do-----	46 26	51 49	Berg (same as No. 2415).
2488	---do-----	-----do-----	46 34	51 55	Berg (same as No. 2416).
2489	---do-----	-----do-----	46 46	52 55	Berg (same as No. 2394).
2490	---do-----	-----do-----	47 00	52 50	Berg (same as No. 2367).
2491	---do-----	-----do-----	47 13	52 44	Berg (same as No. 2368).
2492	---do-----	-----do-----	44 29	45 23	Growler.
2493	---do-----	-----do-----	44 31	45 16	Do.
2494	---do-----	-----do-----	44 36	46 15	Do.
2495	---do-----	Ice Patrol vessel	42 30	52 22	Berg (same as No. 2464).
2496	---do-----	Caslon	43 45	48 07	Berg (same as No. 2482).
2497	---do-----	-----do-----	43 59	48 14	Berg (same as No. 2484).
2498	---do-----	-----do-----	44 02	48 11	Berg (same as No. 2485).
2499	---do-----	Beaverdell	46 09	47 41	Berg (same as No. 2467).
2500	---do-----	-----do-----	46 12	47 56	Berg (same as No. 2468).
2501	---do-----	-----do-----	46 18	47 22	Berg (same as No. 2469).
2502	---do-----	-----do-----	46 20	47 42	Berg (same as No. 2331).
2503	---do-----	-----do-----	46 23	48 04	Berg (same as No. 2334).
2504	---do-----	-----do-----	46 06	47 51	Growlers.
2505	---do-----	Unidentified vessel	46 21	48 15	Berg (same as No. 2384).
2506	---do-----	Manchester Merchant	46 35	48 18	Berg (same as No. 2332).
2507	---do-----	Manchester Vanguard	46 37	48 04	Berg (same as No. 2355).
2508	---do-----	-----do-----	46 41	48 19	Berg (same as No. 2459).
2509	---do-----	-----do-----	46 48	48 50	Berg (same as No. 2291).
2510	---do-----	-----do-----	46 57	48 08	Berg (same as No. 2470).
2511	---do-----	Baskerville	46 44	52 48	Berg (same as No. 2489).
2512	---do-----	-----do-----	46 59	52 37	Berg (same as No. 2490).
2513	---do-----	-----do-----	47 07	48 28	Berg (same as No. 2446).
2514	---do-----	Creator	47 07	49 26	2 bergs (same as Nos. 2435 and 2451).
2515	---do-----	USCGC Halfmoon	47 09	51 50	Berg (same as No. 2474).
2516	---do-----	Empress of Scotland	47 31	50 35	Berg (same as No. 2230).
2517	---do-----	-----do-----	47 36	49 22	Berg (same as No. 2258).
2518	---do-----	-----do-----	47 37	49 45	Berg (same as No. 2238).
2519	---do-----	-----do-----	47 38	49 31	Berg (same as No. 2257).
2520	---do-----	-----do-----	47 39	49 23	2 bergs (same as Nos. 2252 and 2259).
2521	---do-----	Stanfield	47 38	49 15	3 bergs (same as Nos. 2517 and 2520).
2522	---do-----	-----do-----	47 38	49 25	Berg (same as No. 2519).
2523	---do-----	-----do-----	47 48	49 38	Berg.
2524	June 8	Ice Patrol vessel	42 52	52 28	Berg (same as No. 2495).
2525	---do-----	Caslon	44 00	46 09	Berg (same as No. 2583).
2526	---do-----	Chepman	44 29	48 45	Berg (same as No. 2406).
2527	---do-----	-----do-----	44 38	48 49	Berg (same as No. 2408).
2528	---do-----	-----do-----	44 46	49 34	Berg (same as No. 2407).
2529	---do-----	Johanna	44 36	47 35	Berg (same as No. 2486).
2530	---do-----	Duncraig	45 11	49 14	Berg (same as No. 2411).
2531	---do-----	-----do-----	45 17	49 20	Berg (same as No. 2411).

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
2532	---do-----	-----do-------------------	45	23	49	18	Berg (same as No. 2412).
2533	---do-----	L'Aventure------------------	47	01	51	58	Berg (same as No. 2381).
2534	---do-----	-----do-------------------	47	04	51	48	Berg (same as No. 2473).
2535	---do-----	-----do-------------------	47	33	52	51	Berg (same as No. 2511).
2536	---do-----	-----do-------------------	47	49	52	43	Berg (same as No. 2260).
2537	---do-----	-----do-------------------	48	00	49	12	Berg.
2538	---do-----	-----do-------------------	48	13	48	58	Many growlers.
2539	---do-----	Makefjell------------------	46	50	49	12	Berg (same as No. 2432).
2540	---do-----	Leto----------------------	47	21	47	45	Berg (same as No. 2457).
2541	---do-----	-----do-------------------	Vicinity of 48	30	47	30	Many growlers.
2542	---do-----	USCGC Chincoteague-------	47	38	50	34	2 bergs.
2543	---do-----	-----do-------------------	48	26	49	35	Berg.
2544	---do-----	-----do-------------------	Between 48	15	49	10	Many growlers.
			and 48	05	49	10	
2545	---do-----	USCGC Half Moon---------	Vicinity of 47	39	50	58	6 bergs (same as Nos. 2235 and 2253).
2546	---do-----	-----do-------------------	48	10	50	00	Field ice.
2547	---do-----	-----do-------------------	48	10	49	24	Eastern field ice limits.
2548	---do-----	-----do-------------------	48	27	49	36	Berg.
2549	---do-----	Stanfield------------------	47	38	50	46	Berg (same as No. 2545).
2550	---do-----	-----do-------------------	47	46	50	13	Berg (same as No. 2315).
2551	---do-----	-----do-------------------	47	47	50	45	Berg (same as No. 2545).
2552	---do-----	-----do-------------------	47	47	50	49	Do.
2553	---do-----	-----do-------------------	47	47	51	10	Do.
2554	June 9	Ice Patrol plane------------	42	46	50	37	Berg (same as No. 2475).
2555	---do-----	-----do-------------------	42	52	49	52	Berg (same as No. 2476).
2556	---do-----	-----do-------------------	43	00	50	12	Berg (same as No. 2447).
2557	---do-----	-----do-------------------	43	43	48	58	Berg (same as No. 2480).
2558	---do-----	-----do-------------------	43	50	47	35	Berg (same as No. 2484).
2559	---do-----	-----do-------------------	43	50	47	25	Berg (same as No. 2485).
2560	---do-----	-----do-------------------	43	53	48	22	Berg (same as No. 2481).
2561	---do-----	-----do-------------------	44	13	48	25	Berg (same as No. 2526).
2562	---do-----	-----do-------------------	44	20	48	25	Berg (same as No. 2527).
2563	---do-----	-----do-------------------	44	30	48	15	Berg (same as No. 2413).
2564	---do-----	-----do-------------------	46	15	52	38	Berg (same as No. 2535).
2565	---do-----	-----do-------------------	46	26	52	26	Berg (same as No. 2488).
2566	---do-----	-----do-------------------	46	12	52	21	Growler.
2567	---do-----	Ice Patrol vessel-----------	43	05	52	46	Berg (same as No. 2524).
2568	---do-----	Beaverglen----------------	46	01	48	32	Berg (same as No. 2443).
2569	---do-----	-----do-------------------	46	08	47	30	Berg (same as No. 2501).
2570	---do-----	-----do-------------------	46	21	47	54	Berg (same as No. 2383).
2571	---do-----	-----do-------------------	46	23	47	49	Berg (same as No. 2387).
2572	---do-----	Dirphys-------------------	46	15	48	16	Berg (same as No. 2442).
2573	---do-----	-----do-------------------	46	35	47	35	Berg (same as No. 2386).
2574	---do-----	-----do-------------------	46	35	47	45	Berg (same as No. 2388).
2575	---do-----	Saxonia-------------------	46	23	52	47	Berg (same as No. 2565).
2576	---do-----	-----do-------------------	46	42	51	17	Berg (same as No. 2447).
2577	---do-----	-----do-------------------	46	46	51	32	Berg (same as No. 2533).
2578	---do-----	TWA plane-----------------	46	30	46	40	2 bergs (same as Nos. 2458 and 2471).
2579	---do-----	Sylvania------------------	46	32	52	36	Berg (same as No. 2564).
2580	---do-----	-----do-------------------	46	41	51	36	Berg (same as No. 2576).
2581	---do-----	-----do-------------------	46	56	51	46	Berg (same as No. 2534).
2582	---do-----	-----do-------------------	47	34	50	38	Berg (same as No. 2549).
2583	---do-----	-----do-------------------	47	49	49	39	Berg (same as No. 2523).
2584	---do-----	Ivernia-------------------	46	36	52	32	Berg (same as No. 2579).
2585	---do-----	-----do-------------------	47	04	51	43	Berg (same as No. 2515).
2586	---do-----	Ascania-------------------	46	40	52	28	Berg (same as No. 2512).
2587	---do-----	Empress of France---------	46	44	52	46	Berg (same as No. 2586).
2588	---do-----	Bergensfjord--------------	46	57	51	43	Berg (same as No. 2581).
2589	---do-----	-----do-------------------	47	05	51	41	Berg (same as No. 2585).
2590	---do-----	-----do-------------------	47	28	51	24	Berg (same as No. 2233).
2591	---do-----	Konsul Sartori-------------	47	37	50	42	Berg (same as No. 2582).
2592	---do-----	Biskopso------------------	47	40	49	00	4 bergs (same as Nos. 2521 and 2520).
2593	---do-----	-----do-------------------	47	45	48	26	3 bergs.
2594	---do-----	USNS Mission Los Angeles--	46	33	52	12	Field ice containing many bergs and growlers.
2595	---do-----	Stad Alkmaar--------------	Vicinity of 47	40	49	29	6 bergs (same as No. 2583).
2596	---do-----	Stanfield------------------	47	54	51	10	Berg.
2597	---do-----	L'Aventure-----------------	48	54	49	00	2 bergs.
2598	June 10	Ice Patrol plane------------	42	38	51	07	Berg (same as No. 2554).
2599	---do-----	-----do-------------------	43	07	50	14	Berg (same as No. 2556).
2600	---do-----	-----do-------------------	43	12	50	07	Berg (same as No. 2555).
2601	---do-----	-----do-------------------	44	15	47	31	Berg (same as No. 2529).
2602	---do-----	-----do-------------------	44	20	48	00	Berg (same as No. 2410).
2603	---do-----	-----do-------------------	45	17	49	12	Berg (same as No. 2531).

No.	Date	Name of vessel	North latitude °	′	West longitude °	′	Description
2604	do	do	46	21	52	42	Berg (same as No. 2575).
2605	do	do	46	36	52	03	Berg (same as No. 2487).
2606	do	do	46	36	52	10	Berg.
2607	do	do	46	37	51	59	Berg (same as No. 2581).
2608	do	do	46	38	52	39	Berg (same as No. 2587).
2609	do	do	46	39	52	41	Berg (same as No. 2243).
2610	do	do	46	44	52	21	Berg (same as No. 2242).
2611	do	do	46	57	52	50	Berg (same as No. 2491).
2612	do	do	47	00	51	32	Berg (same as No. 2589).
2613	do	do	47	02	52	49	Berg (same as No. 2340).
2614	do	do	47	03	51	23	Berg (same as No. 2239).
2615	do	do	47	00	52	00	Numerous growlers.
2616	do	Ice Patrol vessel	43	11	53	02	Berg (same as No. 2567).
2617	do	Media	44	45	45	04	Berg (same as No. 2376).
2618	do	Beaverglen	45	58	48	56	Berg (same as No. 2568).
2619	do	do	46	40	52	53	3 bergs (same as Nos. 2236 and 2609).
2620	do	Swissair plane	46	10	52	33	Berg (same as No. 2564).
2621	do	do	46	18	51	00	2 bergs (same as Nos. 2576 and 2577).
2622	do	Ascania	46	45	51	32	Berg (same as No. 2621).
2623	do	do	47	21	48	24	3 bergs (same as Nos. 2240, 2440 and 2454).
2624	do	Saxonia	47	21	49	26	Berg (same as No. 2456).
2625	do	do	47	22	48	24	Berg (same as No. 2623).
2626	do	do	47	23	48	19	Do.
2627	do	do	47	28	48	27	Do.
2628	do	do	47	32	48	12	Berg (same as No. 2593).
2629	do	do	47	36	47	50	Berg (same as No. 2593).
2630	do	do	47	36	48	12	Do.
2631	do	Empress of France	47	27	51	17	Berg (same as No. 2590).
2632	do	do	47	40	50	42	Berg (same as No. 2552).
2633	do	do	47	43	50	33	Berg (same as No. 2551).
2634	do	do	47	51	50	27	Berg.
2635	do	do	47	51	50	31	Do.
2636	do	do	47	53	50	11	Do.
2637	do	do	47	54	49	06	Berg (same as No. 2537).
2638	do	do	47	54	49	51	Berg.
2639	do	do	47	55	48	42	Do.
2640	do	do	47	55	48	55	Do.
2641	do	do	47	56	48	54	Do.
2642	do	do	47	56	50	04	Berg (same as No. 2636).
2643	do	do	47	58	48	46	Berg.
2644	do	do	47	59	49	58	Do.
2645	do	do	48	01	49	17	Do.
2646	do	do	48	03	49	04	Do.
			Between				
2647	do	do	47	46	49	40	Many growlers.
			and				
			47	53	49	10	
			North of line from				
2648	do	Bergensfjord	47	55	49	45	Field ice.
			to				
			47	57	49	20	
2649	June 11	Ice Patrol plane	43	52	47	40	Berg (same as No. 2424).
2650	do	do	44	13	48	53	Berg (same as No. 2425).
2651	do	do	44	15	48	28	Berg (same as No. 2561).
2652	do	do	44	17	45	58	3 bergs (same as No. 2525).
2653	do	do	44	25	45	55	Berg (same as No. 2525).
2654	do	do	44	33	46	58	Berg (same as No. 2601).
2655	do	do	44	45	46	40	Berg (same as No. 2428).
2656	do	do	44	45	47	04	Do.
2657	do	do	44	52	48	48	Berg (same as No. 2410).
2658	do	do	45	06	48	53	Berg (same as No. 2428).
2659	do	do	45	07	49	05	Berg (same as No. 2409).
2660	do	do	45	15	49	03	Berg (same as No. 2603).
2661	do	do	45	16	48	59	Berg (same as No. 2414).
2662	do	do	45	22	49	25	Berg (same as No. 2532).
2663	do	do	45	25	48	47	Berg (same as No. 2424).
2664	do	do	46	15	52	47	Berg (same as No. 2604).
2665	do	do	46	28	52	45	Berg (same as No. 2619).
2666	do	do	46	28	52	47	Do.
2667	do	do	46	37	51	26	Berg (same as No. 2576).
2668	do	do	46	39	52	31	Berg (same as No. 2610).
2669	do	do	46	44	51	40	Berg (same as No. 2607).
2670	do	do	46	53	51	52	Berg (same as No. 2622).
2671	do	do	46	54	51	46	Berg (same as No. 2614).
2672	do	do	46	57	52	50	Berg (same as No. 2611).
2673	do	do	47	03	52	50	Berg (same as No. 2613).
2674	do	Ice Patrol vessel	43	16	53	04	Berg (same as No. 2616).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
2675	---do-----	Madaket	43 06 and to eastward	49 09	Berg and growlers (same as No. 2557).
2676	---do-----	-----do	43 05	49 42	Large growler.
2677	---do-----	Unidentified aircraft	44 15	46 00	3 bergs (same as No. 2652).
2678	---do-----	Olympia	44 52	48 40	Berg (same as No. 2657).
2679	---do-----	-----do	44 56	44 55	Berg (same as No. 2617).
2680	---do-----	-----do	44 56	47 00	Berg (same as No. 2482).
2681	---do-----	-----do	45 02	48 47	Berg (same as No. 2658).
2682	---do-----	Homeric	45 57	47 48	Berg (same as No. 2500).
2683	---do-----	-----do	45 59	48 33	Berg (same as No. 2572).
2684	---do-----	-----do	46 00	48 45	Berg (same as No. 2618).
2685	---do-----	-----do	46 01	48 16	Berg (same as No. 2428).
2686	---do-----	-----do	46 03	47 08	Berg and growler (same as No. 2569).
2687	---do-----	-----do	46 04	47 12	Berg.
2688	---do-----	-----do	46 07	47 49	Berg (same as No. 2499).
2689	---do-----	-----do	46 11	47 49	Berg (same as No. 2502).
2690	---do-----	-----do	46 11	52 47	Berg (same as No. 2620).
2691	---do-----	Oslofjord	46 08	52 49	Berg (same as No. 2690).
2692	---do-----	-----do	46 28	52 36	Berg (same as No. 2666).
2693	---do-----	-----do	46 40	52 15	Berg (same as No. 2605).
2694	---do-----	-----do	46 41	51 16	Berg (same as No. 2667).
2695	---do-----	-----do	46 53	51 40	Berg (same as No. 2671).
2696	---do-----	-----do	46 52	51 44	Berg (same as No. 2670).
2697	---do-----	-----do	47 51	48 40	2 bergs (same as Nos. 2639 and 2643).
2698	---do-----	-----do	47 35	49 26	Several bergs (same as No. 2595).
2699	---do-----	New York	46 31	52 40	2 bergs (same as Nos. 2665 and 2666).
2700	---do-----	-----do	46 42	52 21	Berg (same as No. 2668).
2701	---do-----	-----do	46 46	52 49	Berg (same as No. 2619).
2702	---do-----	-----do	46 45	51 46	Berg (same as No. 2696).
2703	---do-----	-----do	47 03	51 45	Berg (same as No. 2612).
2704	---do-----	-----do	47 26	50 22	Berg (same as No. 2516).
2705	---do-----	-----do	47 41	48 52	Berg (same as No. 2592).
2706	---do-----	-----do	46 49	51 52	Growler.
2707	---do-----	-----do	47 26	50 32	Growler.
2708	---do-----	Empress of Britain	46 40	52 20	Berg (same as No. 2605).
2709	---do-----	-----do	46 45	51 32	Berg (same as No. 2669).
2710	---do-----	-----do	46 52	51 45	Berg (same as No. 2695).
2711	---do-----	-----do	47 03	52 45	Berg (same as No. 2673).
2712	---do-----	-----do	47 04	51 47	Berg (same as No. 2703).
2713	---do-----	-----do	47 26	50 22	Berg (same as No. 2704).
2714	---do-----	-----do	47 41	49 00	Berg (same as No. 2592).
2715	---do-----	-----do	47 41	49 20	Berg (same as No. 2595).
2716	---do-----	-----do	46 47	51 52	Growler.
2717	---do-----	Dartwood	10 miles south Cape Bonavista		Heavy field ice.
2718	---do-----	USNS Sagitta	48 38	51 15	Field ice.
2719	June 12	Ice Patrol vessel	43 24	53 12	Berg (same as No. 2674).
2720	---do-----	Mitshurinsk	42 40	53 12	2 bergs (same as No. 2397).
2721	---do-----	-----do	43 05	48 56	Berg (same as No. 2675).
2722	---do-----	Arosa Sky	43 08	49 02	Berg (same as No. 2721).
2723	---do-----	Tern	44 17	46 18	Berg (same as No. 2654).
2724	---do-----	Transpacific	45 28	47 13	Berg (same as No. 2503).
2725	---do-----	Beljeanne	46 29	52 33	2 bergs (same as Nos. 2692 and 2666).
2726	---do-----	-----do	46 45	52 17	Berg (same as No. 2693).
2727	---do-----	-----do	46 50	51 38	Berg (same as No. 2709).
2728	---do-----	-----do	46 54	51 26	Berg (same as No. 2710).
2729	---do-----	-----do	46 56	51 43	Berg (same as No. 2670).
2730	---do-----	-----do	47 22	49 12	Berg (same as No. 2698).
2731	---do-----	-----do	47 25	49 04	Berg (same as No. 2592).
2732	---do-----	-----do	47 29	48 47	Berg (same as No. 2705).
2733	---do-----	-----do	47 45	48 50	Southeast corner of field ice.
2734	---do-----	Groote Beer	47 26	48 34	Berg (same as No. 2740).
2735	---do-----	-----do	47 28	48 44	Do.
2736	---do-----	-----do	47 35	48 33	Do.
2737	---do-----	-----do	47 36	48 47	Berg (same as No. 2637).
2738	---do-----	-----do	47 36	48 53	Berg (same as No. 2715).
2739	---do-----	-----do	47 26	49 17	Growlers.
2740	---do-----	Stadhaarlem	Vicinity of 47 33	48 27	5 bergs (same as Nos. 2640, 2641, 2697 and 2714).
2741	---do-----	Pan American plane	43 53	48 42	Patch of growlers.
2742	June 13	Ice Patrol vessel	43 55	53 06	Berg (same as No. 2674).
2743	---do-----	Monterico	44 10	46 18	Berg (same as No. 2723).
2744	---do-----	Tern	44 34	48 40	2 bergs (same as Nos. 2657 and 2658).
2745	---do-----	-----do	45 45	49 00	Berg (same as No. 2684).
2746	---do-----	-----do	46 25	48 10	Berg (same as No. 2506).
2747	---do-----	-----do	46 25	48 20	Berg (same as No. 2508).
2748	---do-----	-----do	46 40	48 01	Berg (same as No. 2510).
2749	---do-----	-----do	46 44	48 09	Berg (same as No. 2513).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
2750	---do----	-----do----------------	46 54	48 28	Berg (same as No. 2512).
2751	---do----	-----do----------------	47 06	47 10	Berg (same as No. 2540).
2752	---do----	Elisabeth Schulte----------	44 55	45 08	Berg (same as No. 2653).
2753	---do----	Prins Willem IV----------	46 38	47 45	Berg (same as No. 2440).
2754	---do----	-----do----------------	46 43	47 39	Berg (same as No. 2628).
2755	---do----	-----do----------------	46 46	47 09	Berg (same as No. 2461).
2756	---do----	-----do----------------	46 49	47 18	Berg (same as No. 2460).
2757	---do----	Groote Beer--------------	46 43	51 32	Berg (same as No. 2727).
2758	---do----	-----do----------------	46 41	52 02	Berg (same as No. 2726).
2759	---do----	-----do----------------	47 07	50 11	Berg (same as No. 2582).
2760	---do----	-----do----------------	47 08	49 45	Berg (same as No. 2595).
2761	June 13	Nova Scotia--------------	From St. John's to 47 32	51 48	4 bergs, many growlers.
2762	---do----	Ohio----------------------	From 48 05 to 47 58 to 47 36	49 40 to 49 58 to 51 00	Several bergs and growlers (same as Nos. 2632–2636 incl., 2638 and 2644).
2763	---do----	Trelissick----------------	48 59	52 36	Berg and scattered field ice.
2764	---do----	-----do----------------	49 11	52 36	Do.
2765	---do----	-----do----------------	49 14	52 57	Berg.
2766	---do----	-----do----------------	49 16	52 47	Do.
2767	---do----	-----do----------------	Between Funk Island and mainland.		Numerous small bergs.
2768	---do----	-----do----------------	From 50 45 to 50 08 to 49 51	53 23 to 53 00 to 53 20	Field ice limits.
2769	---do----	USNS Sagitta------------	South from Cape Spear-------		Numerous growlers.
2770	June 14	Ice Patrol vessel----------	44 06	53 04	Berg (same as No. 2742).
2771	---do----	Marengo------------------	45 24	47 30	Berg (same as No. 2724).
2772	---do----	MATS plane--------------	45 50	49 02	Berg (same as No. 2745).
2773	---do----	Neptunia------------------	46 36	47 34	Berg (same as No. 2573).
2774	---do----	-----do----------------	46 37	47 46	Berg (same as No. 2753).
2775	---do----	-----do----------------	46 48	47 04	Berg (same as No. 2755).
2776	---do----	Manchester Trader--------	46 47	47 52	2 bergs (same as Nos. 2628 and 2630).
2777	---do----	Rathlin Head--------------	47 04	47 50	Berg (same as No. 2623).
2778	---do----	Nova Scotia--------------	From 47 29 to 47 32	50 28 to 51 48	5 bergs (same as Nos. 2596, 2631 and 2761).
2779	---do----	-----do----------------	From 47 28 to 47 28	50 28 to 49 14	8 bergs (same as Nos. 2218, 2225, 2250, 2252, 2624, 2698, 2730 and 2731).
2780	---do----	Nova Scotia--------------	From 47 28 to 47 38	49 14 to 48 09	7 bergs (same as Nos. 2731, 2732 and 2734–2738 incl.).
2781	---do----	Empress of England--------	47 42	48 42	Berg.
2782	---do----	-----do----------------	47 44	48 36	Do.
2783	---do----	-----do----------------	47 58	48 14	Do.
2784	---do----	Walton-------------------	47 51	49 05	Do.
2785	---do----	Trelissick----------------	48 38	52 52	Do.
2786	---do----	-----do----------------	48 42	52 46	Do.
2787	---do----	-----do----------------	48 42	52 57	Do.
2788	---do----	-----do----------------	48 47	52 44	Do.
2789	---do----	-----do----------------	Vicinity of Cape Bonavista----		Numerous bergs.
2790	---do----	-----do----------------	48 46	52 50	Scattered field ice.
2791	---do----	Canadian Department of Transport.	Fogo Island to Cape Freels---		Shore lead, 1 mile wide.
2792	---do----	-----do----------------	Around Grey Island----------		Heavy pack.
2793	---do----	-----do----------------	Amour Point to Flower Island-		47 percent cover.
2794	---do----	-----do----------------	Eastern end Strait of Belle Isle-		Blocked by heavy pack.
2795	June 15	Ice Patrol vessel----------	44 13	53 05	Berg (same as No. 2770).
2796	---do----	Lykesfjell----------------	44 35	48 09	Berg (same as No. 2651).
2797	---do----	-----do----------------	44 38	48 59	2 bergs (same as No. 2744).
2798	---do----	-----do----------------	44 38	48 56	Berg (same as No. 2659).
2799	---do----	Marengo------------------	45 20	48 50	3 bergs (same as Nos. 2660, 2661 and 2663).
2800	---do----	Sheridan-----------------	45 45	47 40	Berg (same as No. 2682).
2801	---do----	Arosa Sun----------------	45 20	47 34	Berg (same as No. 2771).
2802	---do----	-----do----------------	46 11	48 10	2 bergs (same as Nos. 2570 and 2571).
2803	---do----	USCGC Humboldt---------	46 39	51 49	Berg (same as No. 2757).
2 804	---do----	-----do----------------	46 43	51 42	Berg (same as No. 2667).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
2805	do	Ravnefjell	From 47 13 to 46 38	51 31 / 52 35	5 bergs (same as Nos. 2668 and 2806).
2806	do	do	Between 47 47 and 47 13	50 49 / 51 31	15 bergs (same as Nos. 2712, 2729, 2762 and 2778).
2807	do	Caxton	46 45	52 10	Berg (same as No. 2758).
2808	do	do	Between 47 54 and 47 33	48 19 / 48 35	7 bergs (same as Nos. 2623, 2780, 2781, 2782 and 2783).
2809	June 16	Ice Patrol vessel	44 21	53 00	Berg (same as No. 2795).
2810	do	Nyon	46 43	48 52	2 bergs (same as Nos. 2205 and 2218).
2811	do	USCGC Humboldt	47 34	48 27	Berg (same as No. 2808).
2812	do	Unidentified vessel	47 45	48 35	Do.
2813	June 17	Ice Patrol vessel	44 26	53 06	Berg (same as No. 2809).
2814	do	Unidentified vessel	45 32	49 05	Berg (same as No. 2662).
2815	do	USCG plane	45 57	48 57	Berg (same as No. 2772).
2816	do	do	46 46	51 34	Berg (same as No. 2804).
2817	do	Beaverlodge	46 11	53 21	Berg (same as No. 2664).
2818	do	do	46 15	53 32	Berg (same as No. 2691).
2819	do	do	46 16	52 24	Berg (same as No. 2725).
2820	do	do	46 23	52 15	Do.
2821	do	do	46 27	52 17	Berg (same as No. 2805).
2822	do	do	46 31	51 53	Berg (same as No. 2803).
2823	do	do	46 33	51 32	Berg (same as No. 2816).
2824	do	do	46 39	52 01	Berg (same as No. 2805).
2825	do	Torsholm	46 20	47 46	2 bergs (same as Nos. 2754 and 2756).
2826	do	USS Prevail	46 41	52 51	Berg (same as No. 2701).
2827	do	do	46 42	52 57	Berg (same as No. 2673).
2828	do	Carinthia	46 42	52 50	2 bergs (same as Nos. 2826 and 2827).
2829	do	do	46 49	52 15	Berg (same as No. 2805).
2830	do	do	46 52	51 44	Do.
2831	do	do	46 57	51 39	Do.
2832	do	do	46 57	51 47	Berg (same as No. 2807).
2833	do	do	47 01	51 46	Do.
2834	do	do	47 10	51 21	Do.
2835	do	do	47 12	50 20	Berg (same as No. 2779).
2836	do	do	47 20	50 13	Do.
2837	do	do	47 27	49 17	Berg (same as No. 2780).
2838	do	do	47 33	49 11	Berg (same as No. 2762).
2839	do	do	47 35	48 58	Berg (same as No. 2762).
2840	do	do	47 55	51 54	Berg.
2841	do	Belocean	46 43	52 55	Berg (same as No. 2672).
2842	do	do	46 47	52 50	Berg (same as No. 2828).
2843	do	do	Between Cape Broyle and Cape Spear.		6 bergs (same as No. 2712).
2844	do	Ivernia	46 50	50 40	Berg (same as No. 2728).
2845	do	do	47 10	49 05	Berg (same as No. 2760).
2846	do	do	47 11	48 59	Berg (same as No. 2759).
2847	do	do	47 12	48 36	Berg (same as No. 2812).
2848	do	do	47 20	48 31	2 bergs (same as No. 2780).
2849	do	do	47 27	48 05	Berg (same as No. 2780).
2850	do	do	47 32	48 14	Berg (same as No. 2784).
2851	do	Godafoss	46 57	51 45	Berg (same as No. 2830).
2852	do	do	47 04	51 42	Berg (same as No. 2831).
2853	do	do	47 15	51 22	Berg (same as No. 2834).
2854	do	do	47 30	49 25	Berg (same as No. 2762).
2855	do	do	47 33	48 42	Berg (same as No. 2780).
2856	do	do	47 37	49 20	Berg (same as No. 2762).
2857	do	do	47 38	48 46	Berg (same as No. 2780).
2858	do	do	47 38	48 50	Berg (same as No. 2839).
2859	do	do	47 38	49 13	Berg (same as No. 2838).
2860	do	do	47 40	48 45	Berg.
2861	do	do	47 41	49 05	Berg (same as No. 2762).
2862	do	do	47 44	49 19	Berg.
2863	do	do	47 45	48 50	Do.
2864	do	do	47 48	48 21	Do.
2865	do	do	48 00	48 22	Growler.
2866	do	do	48 03	48 15	Do.
2867	do	Ophelia	47 04	50 20	Berg (same as No. 2835).
2868	do	do	Between 47 40 and 47 23	47 30 / 48 34	8 bergs (same as Nos. 2629, 2780, 2808, 2811 and 2847).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
2869	---do-----	Stanland	47 17	48 23	Berg (same as No. 2868).
2870	---do-----	-----do	47 36	48 24	Berg.
2871	---do-----	-----do	47 37	48 12	Berg (same as No. 2850).
2872	---do-----	-----do	47 40	47 32	Berg (same as No. 2868).
2873	---do-----	Sylvania	Within 10 mile radius of 47 45	49 19	6 bergs and growlers (same as No. 2854).
2874	---do-----	Newfoundland	Vicinity of 48 00	48 10	4 bergs.
2875	---do-----	Canadian Department of Transport.	Entrance to Strait of Belle Isle.		Heavy field ice, 60 percent cover.
2876	---do-----	-----do	From Cape Norman westward		No field ice, numerous growlers.
2877	June 18	Ice Patrol plane	42 30	51 39	Berg (same as No. 2598).
2878	---do-----	-----do	42 51	49 43	Berg (same as No. 2721).
2879	---do-----	-----do	42 56	50 41	Berg (same as No. 2599).
2880	---do-----	-----do	42 57	50 38	Berg (same as No. 2600).
2881	---do-----	-----do	46 32	52 53	Berg (same as No. 2826).
2882	---do-----	-----do	46 34	52 58	Berg (same as No. 2827).
2883	---do-----	Ice Patrol vessel	44 28	53 15	Berg (same as No. 2813).
2884	---do-----	Suederholm	42 43	51 46	Berg (same as No. 2877).
2885	---do-----	Teal	43 55	48 09	Berg (same as No. 2560).
2886	---do-----	Ryndam	45 19	47 44	Berg (same as No. 2802).
2887	---do-----	-----do	45 21	49 11	Berg (same as No. 2799).
2888	---do-----	-----do	45 21	49 22	Do.
2889	---do-----	-----do	45 26	49 15	Do.
2890	---do-----	Unidentified vessel	45 42	48 42	Berg (same as No. 2683).
2891	---do-----	-----do	45 43	48 13	Berg (same as No. 2895).
2892	---do-----	-----do	45 43	48 13	Berg (same as No. 2689).
2893	---do-----	-----do	45 50	48 49	Berg (same as No. 2815).
2894	---do-----	Herald	45 48	47 36	Berg (same as No. 2687).
2895	---do-----	-----do	45 48	48 02	Berg (same as No. 2688).
2896	---do-----	Richard De Larrinaga	46 15	53 43	Berg (same as No. 2818).
2897	---do-----	USN plane	46 44	47 50	Berg (same as No. 2776).
2898	---do-----	-----do	46 45	47 58	Do.
2899	---do-----	Beaverlodge	46 45	51 43	Berg (same as No. 2830).
2900	---do-----	-----do	47 03	50 01	Berg (same as No. 2836).
2901	---do-----	-----do	47 00	50 02	Berg (same as No. 2867).
2902	---do-----	-----do	From 47 26 to 47 10 to 47 18 to 47 38	49 28 / 49 28 / 48 05 / 48 16	24 bergs (same as Nos. 2779, 2837, 2838, 2839, 2845, 2846, 2848, 2849, 2868, 2871 and 2873).
2903	---do-----	-----do	Within 5-mile radius of 47 32	47 55	2 bergs, 6 growlers (same as No. 2868).
2904	---do-----	Ophelia	46 49	51 45	Berg.
2905	---do-----	-----do	46 50	52 07	Berg (same as No. 2829).
2906	---do-----	-----do	46 54	51 43	Berg (same as No. 2833).
2907	---do-----	-----do	46 54	51 53	Berg (same as No. 2851).
2908	---do-----	-----do	North tail of Ballard Banks		Numerous growlers.
2909	---do-----	Baskerville	46 49	51 50	Berg (same as No. 2778).
2910	---do-----	-----do	46 55	51 41	Berg (same as No. 2906).
2911	---do-----	-----do	46 56	51 48	Berg (same as No. 2831).
2912	---do-----	-----do	46 56	51 50	Berg (same as No. 2907).
2913	---do-----	-----do	Within 22-mile radius of 47 28	48 50	21 bergs, numerous growlers (same as No. 2902).
2914	---do-----	-----do	46 42	52 02	Growler.
2915	---do-----	USS Prevail	47 19	52 30	3 bergs (same as No. 2843).
2916	---do-----	-----do	Between lats. 47°25′ N. and 47°30′ N. and longs. 52°24′ W. and 52°32′ W.		6 bergs, 10 growlers.
2917	---do-----	-----do	48 11	52 37	Berg.
2918	---do-----	-----do	48 20	52 32	Do.
2919	---do-----	-----do	Between 49 00 and 49 30	53 00 / 53 25	5 bergs, 25 bergy bits and 25 growlers.
2920	---do-----	-----do	From 49 50 to 49 41 to 49 37 to 49 53 to 50 00	54 20 / 55 15 / 55 23 / 55 23 / 55 25	Southern field ice limits.
2921	---do-----	Stanland	Between lats. 47°33′ N. and 47°20′ N. and longs. 50°20′ W. and 50°33′ W.		12 bergs (same as No. 2807).

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
2922	---do-----	-----do-----------------	Between 47	23	49	22	11 bergs (same as No. 2902).
			and 47	23	49	00	
2923	---do-----	-----do-----------------	47	30	48	46	2 bergs (same as Nos. 2855 and 2860).
2924	---do-----	Newfoundland------------	Between 48	02	48	17	36 bergs (same as Nos. 2778, 2873 and 2874).
			and 47	31	50	30	
2925	June 19	Ice Patrol plane--------	42	47	49	40	Berg (same as No. 2878).
2926	---do-----	-----do-----------------	43	40	48	54	Berg (same as No. 2797).
2927	---do-----	-----do-----------------	43	54	48	11	Berg (same as No. 2649).
2928	---do-----	-----do-----------------	43	54	49	00	Berg (same as No. 2748).
2929	---do-----	-----do-----------------	44	20	48	05	Berg (same as No. 2749).
2930	---do-----	-----do-----------------	44	24	48	55	Berg (same as No. 2798).
2931	---do-----	-----do-----------------	44	38	48	51	Berg (same as No. 2685).
2932	---do-----	-----do-----------------	46	10	53	21	Berg (same as No. 2817).
2933	---do-----	-----do-----------------	46	58	52	50	Berg (same as No. 2843).
2934	---do-----	-----do-----------------	47	00	52	40	Berg (same as No. 2843).
2935	---do-----	-----do-----------------	47	03	52	39	Do.
2936	---do-----	Ice Patrol vessel-------	42	15	51	30	Berg (same as No. 2877).
2937	---do-----	Unidentified vessel-----	42	35	50	50	Berg (same as No. 2879).
2938	---do-----	Sea Spray---------------	42	44	49	43	Berg and growlers (same as No. 2925).
2939	---do-----	North America-----------	43	32	48	55	Berg (same as No. 2560).
2940	---do-----	-----do-----------------	43	33	48	47	Berg (same as No. 2797).
2941	---do-----	-----do-----------------	43	40	48	55	Berg (same as No. 2926).
2942	---do-----	Fanad Head--------------	43	40	48	46	Berg (same as No. 2941).
2943	---do-----	-----do-----------------	43	57	47	50	Berg (same as No. 2946).
2944	---do-----	-----do-----------------	43	57	48	04	Berg (same as No. 2649).
2945	---do-----	-----do-----------------	43	35	48	54	Growlers.
2946	---do-----	Cassiopeia--------------	43	58	48	00	Berg (same as No. 2943).
2947	---do-----	-----do-----------------	44	02	49	02	Berg (same as No. 2928).
2948	---do-----	Manchester City---------	44	24	48	58	Berg (same as No. 2930).
2949	---do-----	-----do-----------------	44	30	48	50	Berg (same as No. 2931).
2950	---do-----	-----do-----------------	44	31	48	48	Berg (same as No. 2747).
2951	---do-----	-----do-----------------	44	48	47	53	Berg (same as No. 2796).
2952	---do-----	-----do-----------------	44	25	48	56	2 growlers.
2953	---do-----	Marquette---------------	45	14	47	43	Berg (same as No. 2886).
2954	---do-----	-----do-----------------	45	16	48	25	Berg (same as No. 2800).
2955	---do-----	-----do-----------------	45	22	48	26	Berg (same as No. 2956).
2956	---do-----	Unidentified vessel-----	45	35	18	22	Berg (same as No. 2891).
2957	---do-----	USCGC Cook Inlet--------	45	55	47	32	Berg (same as No. 2801).
2958	---do-----	-----do-----------------	46	00	47	32	Berg (same as No. 2965).
2959	---do-----	-----do-----------------	46	03	46	59	Berg and growlers (same as No. 2774).
2960	---do-----	-----do-----------------	46	04	47	29	Berg (same as No. 2801).
2961	---do-----	-----do-----------------	46	09	47	22	Berg (same as No. 2825).
2962	---do-----	-----do-----------------	46	14	47	16	Berg (same as No. 2775).
2963	---do-----	Ryndam------------------	46	10	53	40	Berg (same as No. 2818).
2964	---do-----	Herald------------------	46	10	53	52	Berg (same as No. 2948).
2965	---do-----	Prins Frederik Willem---	46	12	47	39	Berg (same as No. 2958).
2966	---do-----	-----do-----------------	46	22	52	00	3 bergs (same as Nos. 2820 and 2822).
2967	---do-----	Malaga------------------	46	25	47	12	Berg (same as No. 2962).
2968	---do-----	-----do-----------------	46	27	48	02	Berg (same as No. 2746).
2969	---do-----	-----do-----------------	46	30	47	42	Berg (same as No. 2773).
2970	---do-----	Ripon-------------------	46	36	46	48	Berg and growlers (same as No. 2751).
2971	---do-----	Salacia-----------------	46	38	51	43	Berg (same as No. 2904).
2972	---do-----	-----do-----------------	46	42	51	42	Berg (same as No. 2910).
2973	---do-----	-----do-----------------	46	45	51	46	Berg (same as No. 2909).
2974	---do-----	-----do-----------------	46	49	51	42	Berg (same as No. 2907).
2975	---do-----	-----do-----------------	46	51	51	32	Berg.
2976	---do-----	-----do-----------------	47	00	51	05	Berg (same as No. 2989).
2977	---do-----	-----do-----------------	47	05	51	16	Do.
2978	---do-----	-----do-----------------	47	05	51	42	Do.
2979	---do-----	-----do-----------------	47	10	50	55	Do.
2980	---do-----	-----do-----------------	47	12	49	43	Berg (same as No. 2902).
2981	---do-----	-----do-----------------	47	15	50	20	Berg (same as No. 2989).
2982	---do-----	-----do-----------------	47	19	50	00	Berg (same as No. 2990).
2983	---do-----	-----do-----------------	46	38	51	43	Growler.
2984	---do-----	-----do-----------------	47	07	50	07	Do.
2985	---do-----	-----do-----------------	47	12	50	00	Do.
2986	---do-----	Empress of Scotland-----	46	41	52	52	Berg.
2987	---do-----	-----do-----------------	46	42	52	51	Do.
2988	---do-----	-----do-----------------	46	49	52	17	Berg (same as No. 2905).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
			Between		
2989	---do-----	-----do-----	46 58	52 03	25 bergs (same as Nos. 2834, 2911, 2921 and 2924).
			and		
			47 22	50 21	
			Between		
2990	---do-----	-----do-----	47 24	50 14	10 bergs (same as No. 2924).
			and		
			47 59	48 36	
2991.	---do-----	Ingleby	48 01	52 44	Numerous bergs.
			and to northward		
2992	---do-----	Beloocean	48 05	49 53	Several bergs.
2993	---do-----	Unidentified vessel	40 00	51 10	Growler.
			From		
2994	---do-----	USS Prevail	49 53	55 23	Field ice boundary.
			to		
			50 00	55 22	
2995	---do-----	-----do-----	Cape St. John to Little Bay Head.		10 mile shore lead.
2996	June 20	Ice Patrol plane	43 51	47 51	Berg (same as No. 2750).
2997	---do-----	-----do-----	44 00	47 45	Berg (same as No. 2777).
2998	---do-----	-----do-----	45 10	47 25	Berg (same as No. 2953).
2999	---do-----	-----do-----	45 26	47 43	Berg (same as No. 2894).
3000	---do-----	-----do-----	45 36	47 55	Berg (same as No. 2957).
3001	---do-----	-----do-----	45 37	48 01	Berg (same as No. 2958).
3002	---do-----	-----do-----	45 38	47 38	Berg (same as No. 2960).
3003	---do-----	-----do-----	45 42	47 47	Berg (same as No. 2750).
3004	---do-----	-----do-----	45 43	47 45	Berg (same as No. 2691).
3005	---do-----	-----do-----	45 45	47 38	Berg (same as No. 2962).
3006	---do-----	-----do-----	45 47	47 51	Berg (same as No. 2777).
3007	---do-----	-----do-----	45 52	47 53	Berg (same as No. 2810).
3008	---do-----	-----do-----	46 19	51 12	Berg.
3009	---do-----	-----do-----	46 25	51 01	Berg (same as No. 2844).
3010	---do-----	-----do-----	46 30	51 24	Berg (same as No. 2971).
3011	---do-----	-----do-----	46 32	51 38	Berg (same as No. 2972).
3012	---do-----	-----do-----	46 41	51 12	Berg (same as No. 2975).
3013	---do-----	-----do-----	46 42	52 42	Berg (same as No. 2934).
3014	---do-----	-----do-----	46 43	52 49	Berg (same as No. 2935).
3015	---do-----	-----do-----	46 47	52 45	Berg (same as No. 2843).
3016	---do-----	-----do-----	46 50	52 50	Do.
3017	---do-----	Ice Patrol vessel	42 20	51 33	Berg (same as No. 2936).
3018	---do-----	Italia	45 54	48 00	Berg (same as No. 2750).
3019	---do-----	-----do-----	45 58	48 00	Berg (same as No. 2777).
3020	---do-----	-----do-----	45 30	46 45	Growler.
3021	---do-----	USCGC Cook Inlet	46 05	53 42	Berg (same as No. 2964).
3022	---do-----	Marquette	46 06	53 53	Do.
3023	---do-----	Oslofjord	46 06	53 56	Do.
3024	---do-----	Assyria	46 11	51 30	Berg (same as No. 2823).
3025	---do-----	-----do-----	46 15	48 46	Berg (same as No. 2810).
3026	---do-----	-----do-----	46 20	47 58	Berg (same as No. 2902).
3027	---do-----	-----do-----	46 24	47 41	Berg (same as No. 2969).
3028	---do-----	-----do-----	46 11	48 20	5 growlers.
3029	---do-----	Unidentified vessel	46 21	47 30	Berg (same as No. 2897).
3030	---do-----	Beaverlake	46 34	53 06	Berg (same as No. 2882).
3031	---do-----	-----do-----	46 36	52 42	Berg (same as No. 2881).
3032	---do-----	-----do-----	46 37	52 46	Berg (same as No. 2986).
3033	---do-----	-----do-----	46 40	52 46	Berg.
3034	---do-----	-----do-----	46 41	52 54	Berg (same as No. 2933).
3035	---do-----	-----do-----	46 42	52 45	Berg (same as No. 2934).
3036	---do-----	-----do-----	46 42	52 49	Berg (same as No. 2935).
3037	---do-----	-----do-----	46 45	52 22	Berg (same as No. 2988).
3038	---do-----	-----do-----	46 46	52 25	Berg (same as No. 2824).
3039	---do-----	-----do-----	46 50	51 51	Berg (same as No. 2974).
3040	---do-----	-----do-----	46 52	51 47	Berg (same as No. 2989).
3041	---do-----	-----do-----	46 56	51 53	Do.
3042	---do-----	-----do-----	46 57	51 25	Do.
3043	---do-----	-----do-----	46 58	51 48	Do.
3044	---do-----	-----do-----	46 58	51 35	Berg (same as No. 2978).
3045	---do-----	-----do-----	46 58	51 55	Berg (same as No. 2989).
3046	---do-----	-----do-----	46 58	51 56	Do.
3047	---do-----	-----do-----	46 58	52 01	Do.
3048	---do-----	-----do-----	46 59	51 51	Do.
3049	---do-----	-----do-----	47 00	51 09	Berg (same as No. 2976).
3050	---do-----	-----do-----	47 00	51 43	Berg (same as No. 2989).
3051	---do-----	-----do-----	47 04	51 21	Berg (same as No. 2977).
3052	---do-----	-----do-----	47 04	51 46	Berg (same as No. 2989).
3053	---do-----	-----do-----	47 06	50 16	Berg and growlers (same as No. 2900).
3054	---do-----	-----do-----	47 09	50 58	Berg (same as No. 2979).
3055	---do-----	-----do-----	47 10	51 52	Berg (same as No. 2989).
3056	---do-----	-----do-----	47 12	51 20	Do.
3057	---do-----	-----do-----	47 17	50 37	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3058	---do----	-----do-----	47 18	50 20	Berg (same as No. 2981).
3059	---do----	-----do-----	47 18	50 33	Berg (same as No. 2989).
3060	---do----	-----do-----	47 29	49 06	Berg (same as No. 2902).
3061	---do----	-----do-----	46 55	51 39	2 growlers.
3062	---do----	-----do-----	47 14	50 16	Growler.
3063	---do----	-----do-----	47 15	50 22	Do.
3064	---do----	-----do-----	47 29	49 18	Do.
3065	---do----	Empress of Britain	46 33	53 09	Berg (same as No. 3030).
3066	---do----	-----do-----	46 37	52 43	Berg (same as No. 3031).
3067	---do----	-----do-----	46 38	52 49	Berg (same as No. 3032).
3068	---do----	-----do-----	46 42	52 51	Berg (same as No. 3034).
3069	---do----	-----do-----	46 47	52 44	Berg (same as No. 3015).
3070	---do----	-----do-----	46 47	52 48	Berg (same as No. 3016).
3071	---do----	-----do-----	46 52	52 43	Berg.
3072	---do----	Birmingham City	47 10	50 18	Berg (same as No. 3053).
3073	---do----	-----do-----	47 15	50 25	Berg (same as No. 3058).
3074	---do----	-----do-----	47 20	50 10	Berg and growlers (same as No. 2990).
3075	---do----	-----do-----	47 21	49 13	Berg (same as No. 3083).
3076	---do----	-----do-----	47 22	49 11	Do.
3077	---do----	-----do-----	47 26	49 23	Berg (same as No. 2902).
3078	---do----	-----do-----	47 27	49 09	Berg (same as No. 3060).
3079	---do----	-----do-----	47 32	49 20	Berg (same as No. 2990).
3080	---do----	-----do-----	47 40	49 24	Berg (same as No. 2924).
3081	---do----	-----do-----	47 22	49 50	Growlers.
3082	---do----	Salacia	47 12	49 13	Berg (same as No. 2902).
3083	---do----	-----do-----	47 22	49 16	2 bergs (same as No. 2902).
3084	---do----	-----do-----	47 26	47 54	Growler.
3085	---do----	-----do-----	47 30	48 43	Do.
3086	---do----	-----do-----	47 32	49 05	Do.
3087	---do----	-----do-----	47 36	48 20	Do.
3088	---do----	Santa Maria	Between 47 35 and 47 30	48 55 and 49 50	6 bergs (same as Nos. 2990, 3015 and 3016).
3089	---do----	Birmingham City	47 33	49 10	Berg (same as No. 2990).
3090	---do----	-----do-----	47 34	48 56	Do.
3091	---do----	-----do-----	47 36	48 42	Berg (same as No. 2913).
3092	---do----	-----do-----	47 40	48 15	Berg (same as No. 2860).
3093	---do----	-----do-----	47 46	48 09	Berg (same as No. 2864).
3094	---do----	-----do-----	47 46	48 35	Berg (same as No. 2924).
3095	---do----	Star of Assuan	Vicinity of 47 48	49 20	3 bergs (same as No. 2924).
3096	---do----	Eibe Oldendorff	48 32	51 32	2 bergs.
3097	---do----	USS Prevail	49 50	55 42	Field ice.
3098	---do----	-----do-----	West coast Notre Dame Bay to Gull Island.		1 mile wide shore lead.
3099	June 21	Ice Patrol plane	45 19	47 45	Berg (same as No. 2999).
3100	---do----	-----do-----	45 25	47 28	Berg (same as No. 2998).
3101	---do----	-----do-----	45 26	48 37	Berg (same as No. 3001).
3102	---do----	-----do-----	45 28	48 20	Berg (same as No. 3000).
3103	---do----	-----do-----	45 29	48 18	Berg (same as No. 3003).
3104	---do----	-----do-----	45 29	47 50	Berg (same as No. 3004).
3105	---do----	-----do-----	45 30	47 35	Berg (same as No. 3005).
3106	---do----	-----do-----	45 32	48 28	Berg (same as No. 3006).
3107	---do----	-----do-----	45 33	47 36	Berg (same as No. 3002).
3108	---do----	-----do-----	45 33	47 35	Berg (same as No. 2959).
3109	---do----	-----do-----	45 33	47 34	Berg (same as No. 2898).
3110	---do----	-----do-----	45 34	47 38	Berg (same as No. 3007).
3111	---do----	-----do-----	45 36	47 35	Berg.
3112	---do----	-----do-----	45 38	47 45	Do.
3113	---do----	-----do-----	45 39	47 29	Do.
3114	---do----	-----do-----	45 42	47 30	Do.
3115	---do----	-----do-----	45 43	47 28	Do.
3116	---do----	-----do-----	45 44	47 33	Do.
3117	---do----	-----do-----	45 45	47 37	Do.
3118	---do----	-----do-----	45 45	46 36	Do.
3119	---do----	-----do-----	45 46	46 36	Do.
3120	---do----	-----do-----	45 47	47 43	Do.
3121	---do----	-----do-----	45 48	47 53	Do.
3122	---do----	-----do-----	45 48	47 55	Do.
3123	---do----	-----do-----	45 50	48 06	Berg (same as No. 2893).
3124	---do----	-----do-----	45 51	47 58	Berg (same as No. 2968).
3125	---do----	-----do-----	45 52	47 03	Berg.
3126	---do----	-----do-----	45 54	47 40	Berg (same as No. 3029).
3127	---do----	-----do-----	45 56	48 02	Berg (same as No. 3027).
3128	---do----	-----do-----	45 56	47 46	Berg.
3129	---do----	-----do-----	45 58	47 54	Do.
3130	---do----	-----do-----	45 59	48 00	Do.
3131	---do----	-----do-----	45 59	47 35	Do.
3132	---do----	-----do-----	46 03	48 30	Berg (same as No. 3025).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3133	---do----	-----do----------	46 07	49 54	Berg.
3134	---do----	-----do----------	46 12	47 46	Do.
3135	---do----	-----do----------	46 13	47 40	Do.
3136	---do----	-----do----------	46 18	46 34	Berg (same as No. 2970).
3137	---do----	-----do----------	46 19	47 42	Berg.
3138	---do----	-----do----------	46 20	50 00	Berg (same as No. 2901).
3139	---do----	-----do----------	46 21	48 12	Berg.
3140	---do----	-----do----------	46 22	48 17	Do.
3141	---do----	-----do----------	46 22	47 45	Do.
3142	---do----	-----do----------	46 24	48 10	Do.
3143	---do----	-----do----------	46 27	47 59	Do.
3144	---do----	-----do----------	46 28	47 58	Do.
3145	---do----	-----do----------	46 28	48 06	Do.
3146	---do----	-----do----------	46 35	48 28	Do.
3147	---do----	-----do----------	46 46	50 30	Do.
3148	---do----	-----do----------	46 49	49 40	Berg (same as No. 2902).
3149	---do----	-----do----------	46 50	50 30	Berg.
3150	---do----	-----do----------	46 52	50 32	Berg (same as No. 3054).
3151	---do----	-----do----------	46 54	50 42	Berg.
3152	---do----	-----do----------	46 54	49 50	Berg (same as No. 2980).
3153	---do----	-----do----------	46 54	50 02	Berg (same as No. 2982).
3154	---do----	-----do----------	46 55	50 04	Berg (same as No. 3072).
3155	---do----	-----do----------	46 56	50 08	Berg.
3156	---do----	-----do----------	46 57	50 36	Berg (same as No. 3057).
3157	---do----	-----do----------	46 57	50 10	Berg.
3158	---do----	-----do----------	46 58	50 20	Berg (same as No. 3063).
3159	---do----	-----do----------	46 59	50 40	Berg (same as No. 3059).
3160	---do----	-----do----------	47 00	50 00	Berg (same as No. 2990).
3161	---do----	-----do----------	47 04	50 25	Berg (same as No. 3074).
3162	---do----	-----do----------	47 05	50 30	Berg.
3163	---do----	-----do----------	47 06	50 35	Do.
3164	---do----	Ice Patrol vessel----------	41 55	50 17	Berg and growlers (same as No. 3017).
3165	---do----	USCGC Evergreen--------	46 09	54 06	Berg (same as No. 3023).
3166	---do----	USCG plane--------------	Within 10-mile radius of 46 15	51 35	5 bergs (same as Nos. 2819, 2996 and 3024).
3167	---do----	Oslofjord---------------	46 41	52 19	2 bergs (same as Nos. 3037 and 3038).
3168	---do----	-----do----------	46 48	51 56	3 bergs (same as Nos. 3040, 3041 and 3048).
3169	---do----	-----do----------	46 52	51 49	2 bergs (same as Nos. 3043 and 3045).
3170	---do----	-----do----------	46 53	51 18	3 bergs (same as Nos. 2989, 3042 and 3049).
3171	---do----	-----do----------	46 53	52 10	2 bergs (same as No. 2989).
3172	---do----	-----do----------	47 00	52 00	2 bergs (same as Nos. 3046 and 3047).
3173	---do----	-----do----------	47 03	52 00	Berg (same as No. 3055).
3174	---do----	-----do----------	Between 47 02 and 47 43	51 41 and 50 03	35 bergs (same as Nos. 2924, 2989, 3044, 3050-3052 and 3056).
3175	---do----	-----do----------	47 56	49 20	2 bergs.
3176	---do----	USNS Sagitta------------	46 34	53 06	Berg (same as No. 3030).
3177	---do----	Bernd Leonhardt----------	From 48 40 to 48 14	49 05 to 51 05	9 bergs, numerous growlers.
3178	---do----	Stavangerfjord------------	Vicinity of 47 40	50 40	6 bergs (same as No. 3174).
3179	---do----	Carl Fritzen--------------	Vicinity of 48 05	51 00	6 bergs.
3180	---do----	USN plane----------------	Line from 50 00 to 49 55 to 50 12 to 50 48 to 51 38 to 52 01 to 52 16 to 53 28 to 54 00	53 58 to 54 52 to 55 08 to 55 04 to 55 03 to 54 55 to 55 06 to 55 17 to 55 34	Eastern field ice boundary.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3181	---do-----	USN plane	Line from 50 00 to 49 48 to 49 46 to 49 58	 53 58 54 47 55 35 55 29	Western field ice boundary.
3182	June 22	Ice Patrol plane	42 30	49 46	Berg (same as No. 2925).
3183	---do-----	Ice Patrol vessel	41 56	50 03	Berg (same as No. 3164)
3184	---do-----	-----do	42 29	49 42	Berg (same as No. 3182).
3185	---do-----	-----do	42 09	50 01	Several growlers (same as No. 3183).
3186	---do-----	Lancelot	43 24	47 00	Berg (same as No. 2996).
3187	---do-----	City of Coventry	Within 15-mile radius of 43 28	 48 48	4 bergs (same as Nos. 2926, 2928, 2930 and 2931).
3188	---do-----	Falkanger	43 32	47 03	Berg (same as No. 3186).
3189	---do-----	Ranenfjord	45 41	48 12	Berg (same as No. 3123).
3190	---do-----	-----do	45 42	47 58	2 bergs (same as Nos. 3121 and 3122).
3191	---do-----	-----do	45 42	48 02	2 bergs (same as Nos. 3124 and 3129).
3192	---do-----	-----do	45 46	47 52	2 bergs (same as Nos. 3120 and 3128).
3193	---do-----	-----do	45 52	47 15	Berg (same as No. 3125).
3194	---do-----	-----do	46 26	46 51	Growler.
3195	---do-----	Francisca Sartori	46 00	47 15	Berg (same as No. 3193).
3196	---do-----	-----do	46 04	48 00	Berg and growlers (same as No. 3134).
3197	---do-----	-----do	46 10	47 52	Berg and growlers (same as No. 3137).
3198	---do-----	Poseidon	46 12	54 21	Berg (same as No. 3165).
3199	---do-----	Trondheim	46 13	53 44	Berg (same as No. 2932).
3200	---do-----	-----do	46 31	53 20	Berg (same as No. 3176).
3201	---do-----	-----do	46 32	53 04	Berg (same as No. 3034).
3202	---do-----	Windsor	46 14	54 25	Berg (same as No. 3198).
3203	---do-----	Baron Geddes	Vicinity of 46 40	 47 40	11 bergs (same as No. 2902).
3204	---do-----	Arosa Star	46 41	47 28	3 bergs (same as No. 3203).
3205	---do-----	Groote Beer	46 49	52 10	Berg (same as No. 3171).
3206	---do-----	-----do	47 07	50 53	10 bergs (same as No. 3174).
3207	---do-----	-----do	47 32	49 00	8 bergs (same as Nos. 2902 and 3088).
3208	---do-----	Gyda Torm	47 50	50 00	6 bergs.
3209	---do-----	L'Aventure	48 14	50 00	Berg.
3210	---do-----	USS Prevail	49 50	55 42	Scattered field ice.
3211	June 23	Ice Patrol vessel	42 20	49 19	Berg (same as No. 3184).
3212	---do-----	Rythme	43 08	46 29	Berg (same as No. 3186).
3213	---do-----	Manchester Merchant	44 46	46 40	Berg (same as No. 2951).
3214	---do-----	-----do	45 12	48 33	Berg (same as No. 3103).
3215	---do-----	-----do	45 14	49 16	Berg (same as No. 2887).
3216	---do-----	-----do	45 04	48 39	Growlers.
3217	---do-----	USCGC Eastwind	46 18	53 17	2 bergs (same as Nos. 3222 and 3231).
3218	---do-----	-----do	47 00	52 43	5 bergs (same as No. 2843).
3219	---do-----	USCGC Spencer	46 18	54 18	Berg (same as No. 3202).
3220	---do-----	Carinthia	46 19	53 13	Berg (same as No. 3031).
3221	---do-----	-----do	46 19	54 23	Berg (same as No. 3202).
3222	---do-----	-----do	46 20	53 06	2 bergs.
3223	---do-----	-----do	46 31	52 48	2 bergs (same as Nos. 3032 and 3034).
3224	---do-----	-----do	46 31	52 48	2 bergs (same as No. 3015).
3225	---do-----	-----do	46 32	53 02	2 bergs (same as No. 3016).
3226	---do-----	-----do	46 32	53 12	Berg (same as No. 3071).
3227	---do-----	-----do	46 32	53 20	Berg (same as No. 3031).
3228	---do-----	-----do	46 41	52 54	3 bergs (same as Nos. 3171 and 3201).
3229	---do-----	-----do	46 42	52 09	2 bergs (same as No. 3167).
3230	---do-----	-----do	46 43	51 45	Berg (same as No. 2973).
3231	---do-----	-----do	46 43	52 38	Berg (same as No. 3171).
3232	---do-----	-----do	46 44	52 12	Berg (same as No. 3200).
3233	---do-----	-----do	46 47	52 44	3 bergs.
3234	---do-----	-----do	46 48	52 36	Berg.
3235	---do-----	-----do	46 50	52 08	Do.
3236	---do-----	-----do	46 50	52 30	2 bergs.
3237	---do-----	-----do	46 52	52 22	3 bergs.
3238	---do-----	-----do	46 57	51 45	Berg (same as No. 3174).
3239	---do-----	-----do	46 57	57 05	Berg.
3240	---do-----	-----do	Within 10-mile radius of 47 00	 51 30	12 bergs (same as Nos. 3168–3170).
3241	---do-----	-----do	47 00	51 54	Berg.
3242	---do-----	-----do	47 02	51 58	Do.

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
3243	---do-----	-----do-------------------	47 07	50 45	5 bergs (same as Nos. 3157, 3158 and 3161).
3244	---do-----	Esso Pittsburgh------------	46 21	53 09	Berg (same as No. 3031).
3245	---do-----	Lyngenfjord---------------	46 33	53 12	Berg (same as No. 3201).
3246	---do-----	Empress of France---------	Between 46 36 and 46 34	53 14 and 53 23	4 bergs (same as No. 3200).
3247	---do-----	-----do-------------------	Between 47 09 and 46 35	51 47 and 53 04	46 bergs (same as Nos. 3015, 3016, 3031, 3032, 3034, 3071, 3245, 3248 and 3249).
3248	---do-----	Trondheim----------------	46 35	52 50	Berg (same as No. 3031).
3249	---do-----	-----do-------------------	46 45	52 20	Berg (same as No. 3171).
3250	---do-----	-----do-------------------	46 50	51 00	Berg (same as No. 3170).
3251	---do-----	-----do-------------------	46 54	61 10	Do.
3252	---do-----	-----do-------------------	47 06	50 58	Berg (same as No. 3206).
3253	---do-----	-----do-------------------	47 08	51 04	Do.
3254	---do-----	-----do-------------------	47 12	50 44	Berg (same as No. 3174).
3255	---do-----	-----do-------------------	47 15	51 40	Berg.
3256	---do-----	-----do-------------------	47 18	50 25	Berg (same as No. 3174).
3257	---do-----	-----do-------------------	47 20	51 45	Berg.
3258	---do-----	-----do-------------------	47 24	50 01	Berg (same as No. 3174).
3259	---do-----	-----do-------------------	47 28	49 44	2 bergs (same as No. 3088).
3260	---do-----	-----do-------------------	47 33	49 25	Do.
3261	---do-----	Beaverglen----------------	Between 46 59 and 47 07	50 55 and 50 10	25 bergs (same as Nos. 3150, 3151, 3156–3159, 3161–3163, 3174 and 3206).
3262	---do-----	-----do-------------------	Between 47 07 and 47 17	50 10 and 49 26	5 bergs (same as No. 3174).
3263	---do-----	Empress of France---------	Between 47 39 and 47 09	50 44 and 51 47	14 bergs (same as Nos. 2915, 3172, 3173, 3178 and 3255).
3264	---do-----	Lismoria------------------	Within 10 miles of track between 47 17 and 47 50	51 04 and 49 45	32 bergs (same as Nos. 3174, 3208, 3263 and 3265).
3265	---do-----	-----do-------------------	47 52	49 41	2 bergs.
3266	---do-----	Vilhelm Torkildsen---------	47 19	50 03	Berg (same as No. 3258).
3267	---do-----	-----do-------------------	47 20	49 54	Berg.
3268	---do-----	-----do-------------------	47 21	49 33	Berg (same as No. 3088).
3269	---do-----	-----do-------------------	47 23	49 23	Do.
3270	---do-----	-----do-------------------	47 23	50 04	Berg.
3271	---do-----	-----do-------------------	47 24	49 06	Berg (same as No. 3207).
3272	---do-----	-----do-------------------	47 24	49 44	Berg (same as No. 3259).
3273	---do-----	-----do-------------------	47 26	50 02	Berg.
3274	---do-----	-----do-------------------	47 32	49 16	Berg (same as No. 3080).
3275	---do-----	L'Aventure----------------	47 39	51 56	Berg (same as No. 2840).
3276	---do-----	-----do-------------------	47 41	51 54	Berg.
3277	---do-----	-----do-------------------	47 44	52 10	2 bergs.
3278	---do-----	-----do-------------------	47 45	51 52	Do.
3279	---do-----	-----do-------------------	47 52	51 49	Do.
3280	---do-----	-----do-------------------	48 05	50 25	Do.
3281	---do-----	Arabia--------------------	47 46	50 08	Berg (same as No. 3264).
3282	June 24	Ice Patrol plane-----------	46 07	53 20	Berg.
3283	---do-----	-----do-------------------	46 08	53 25	Do.
3284	---do-----	Ice Patrol vessel----------	42 22	48 58	Berg (same as No. 3211).
3285	---do-----	Amerlie Thyssen-----------	44 39	46 07	Berg (same as No. 3213).
3286	---do-----	USCGC Spencer------------	44 46	47 57	Berg (same as No. 2954).
3287	---do-----	-----do-------------------	44 50	47 56	Berg (same as No. 2955).
3288	---do-----	-----do-------------------	44 56	48 36	Berg (same as No. 3214).
3289	---do-----	Unidentified vessel--------	45 34	48 24	Berg (same as No. 3135).
3290	---do-----	-----do-------------------	45 38	48 14	Berg (same as No. 3141).
3291	---do-----	Rathlin Head--------------	46 23	53 05	Berg (same as No. 3222).
3292	---do-----	-----do-------------------	46 23	53 13	Berg (same as No. 3220).
3293	---do-----	-----do-------------------	46 31	53 07	Berg (same as No. 3246).
3294	---do-----	-----do-------------------	46 32	52 41	Do.
3295	---do-----	-----do-------------------	46 32	53 15	Berg (same as No. 3226).
3296	---do-----	-----do-------------------	46 32	53 24	Berg (same as No. 3227).
3297	---do-----	-----do-------------------	46 33	52 51	Berg (same as No. 3247).
3298	---do-----	-----do-------------------	46 33	53 12	Do.
3299	---do-----	-----do-------------------	46 33	53 24	Do.
3300	---do-----	-----do-------------------	46 34	52 49	Berg (same as No. 3223).
3301	---do-----	-----do-------------------	46 36	52 45	Berg (same as No. 3233).
3302	---do-----	-----do-------------------	46 37	52 41	Berg (same as No. 3236).
3303	---do-----	-----do-------------------	46 39	52 53	Berg (same as No. 3228).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3304	...do.....	.....do..................	46 42	52 48	Berg (same as No. 3233).
3305	...do.....	.....do..................	46 47	52 28	Berg (same as No. 3237).
3306	...do.....	.....do..................	46 48	52 31	Berg (same as No. 3247).
3307	...do.....	.....do..................	46 49	52 13	Berg (same as No. 3239).
3308	...do.....	.....do..................	46 49	52 26	Berg (same as No. 3237).
3309	...do.....	.....do..................	46 49	52 30	Berg (same as No. 3236).
3310	...do.....	.....do..................	46 50	52 53	Berg (same as No. 3218).
3311	...do.....	.....do..................	46 53	52 10	Berg (same as No. 3242).
3312	...do.....	.....do..................	46 57	52 01	Berg (same as No. 3241).
3313	...do.....	.....do..................	46 58	52 02	Berg (same as No. 3247).
3314	...do.....	.....do..................	47 03	51 46	Do.
3315	...do.....	.....do..................	47 09	51 52	Do.
3316	...do.....	.....do..................	47 09	51 54	Do.
3317	...do.....	.....do..................	Within 10-mile radius of 47 10	51 30	12 bergs (same as No. 3247).
3318	...do.....	.....do..................	47 21	51 12	Berg (same as No. 3247).
3319	...do.....	Saxonia..................	From 47 44 to 47 10	49 47 to 51 11	22 bergs (same as Nos. 3264 and 3323).
3320	...do.....	.....do..................	47 43	49 40	2 bergs (same as No. 3264).
3321	...do.....	.....do..................	46 22	54 22	2 growlers.
3322	...do.....	Carinthia..................	47 27	49 57	2 bergs (same as Nos. 3264 and 3270).
3323	...do.....	.....do..................	47 33	50 17	2 bergs (same as No. 3264).
3324	...do.....	.....do..................	47 43	50 15	Berg (same as No. 3264).
3325	...do.....	KLM plane..................	47 50	49 30	Do.
3326	June 25	Ice Patrol plane..................	44 12	46 35	Berg (same as No. 2929).
3327	...do.....	.....do..................	44 32	45 19	Berg (same as No. 3285).
3328	...do.....	.....do..................	44 44	46 31	Berg (same as No. 2997).
3329	...do.....	.....do..................	46 01	51 35	Berg (same as No. 3166).
3330	...do.....	.....do..................	46 02	51 42	Do.
3331	...do.....	.....do..................	46 06	52 01	Berg (same as No. 3166).
3332	...do.....	.....do..................	46 06	52 09	Do.
3333	...do.....	.....do..................	46 09	51 38	Do.
3334	...do.....	.....do..................	46 19	51 54	Berg (same as No. 3011).
3335	...do.....	.....do..................	46 19	51 58	Berg (same as No. 3010).
3336	...do.....	.....do..................	46 23	51 10	Berg (same as No. 3012).
3337	...do.....	.....do..................	46 31	51 44	Berg (same as No. 3230).
3338	...do.....	.....do..................	46 35	51 53	Berg (same as No. 3229).
3339	...do.....	.....do..................	46 36	52 09	Do.
3340	...do.....	.....do..................	46 40	52 22	Berg (same as No. 3239).
3341	...do.....	.....do..................	46 46	52 02	Berg (same as No. 3235).
3342	...do.....	Ice Patrol vessel..................	42 13	48 13	Berg (same as No. 3284).
3343	...do.....	USS Kirkpatrick..................	42 56	49 17	Berg (same as No. 3187).
3344	...do.....	.....do..................	43 02	49 02	Do.
3345	...do.....	.....do..................	43 02	49 24	Do.
3346	...do.....	Woodford..................	44 15	48 37	Berg (same as No. 3104).
3347	...do.....	Wuerttemberg..................	44 32	45 25	Berg (same as No. 3285).
3348	...do.....	Honold..................	45 54	51 17	Berg.
3349	...do.....	.....do..................	46 00	51 20	Do.
3350	...do.....	USNS J. E. Kelley..................	46 13	53 35	Berg (same as No. 3283).
3351	...do.....	.....do..................	46 15	53 14	Berg (same as No. 3291).
3352	...do.....	.....do..................	46 23	53 19	Berg (same as No. 3292).
3353	...do.....	.....do..................	46 25	53 20	Berg (same as No. 3295).
3354	...do.....	.....do..................	46 27	52 55	Berg (same as No. 3297).
3355	...do.....	.....do..................	46 32	53 14	Berg (same as No. 3293).
3356	...do.....	.....do..................	46 35	52 47	Berg (same as No. 3301).
3357	...do.....	.....do..................	46 37	53 01	Berg (same as No. 3303).
3358	...do.....	.....do..................	46 39	52 44	Berg (same as No. 3304).
3359	...do.....	.....do..................	46 42	52 52	Berg (same as No. 3228).
3360	...do.....	.....do..................	46 44	52 55	Do.
3361	...do.....	.....do..................	46 45	52 45	Berg (same as No. 3233).
3362	...do.....	.....do..................	46 45	52 46	Do.
3363	...do.....	.....do..................	46 46	52 48	Berg (same as No. 3218).
3364	...do.....	.....do..................	46 48	52 38	Berg (same as No. 3306).
3365	...do.....	.....do..................	46 48	52 39	Berg (same as No. 3309).
3366	...do.....	.....do..................	46 51	51 53	Berg (same as No. 3218).
3367	...do.....	.....do..................	46 53	52 35	Do.
3368	...do.....	.....do..................	46 59	52 52	Do.
3369	...do.....	.....do..................	47 06	52 50	Berg.
3370	...do.....	.....do..................	47 07	52 32	Do.
3371	...do.....	.....do..................	47 09	52 49	Do.
3372	...do.....	.....do..................	47 10	52 45	Do.
3373	...do.....	.....do..................	47 11	52 45	Do.
3374	...do.....	Empress of England..................	46 21	54 31	2 bergs (same as Nos. 3221 and 3227).
3375	...do.....	.....do..................	46 30	52 52	Berg (same as No. 3297).
3376	...do.....	.....do..................	46 32	53 14	Berg (same as No. 3298).
3377	...do.....	.....do..................	46 41	52 51	Berg (same as No. 3228).
3378	...do.....	.....do..................	46 49	52 52	Berg (same as No. 3310).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3379	---do-----	-----do-------------------	47 29	50 24	Berg (same as No. 3319).
3380	---do-----	-----do-------------------	47 30	50 35	Berg (same as No. 3264).
3381	---do-----	-----do-------------------	47 41	50 12	Berg and growlers (same as No. 3324).
3382	---do-----	-----do-------------------	47 41	50 27	Berg (same as No. 3264).
3383	---do-----	-----do-------------------	47 42	50 11	Do.
3384	---do-----	-----do-------------------	47 45	50 22	Do.
3385	---do-----	-----do-------------------	47 57	49 40	Do.
3386	---do-----	-----do-------------------	47 49	49 56	Growler.
3387	---do-----	L'Aventure------------------	46 32	53 12	Berg (same as No. 3298).
3388	---do-----	USNS Bondia---------------	48 12	52 39	Several bergs.
3389	June 26	Ice Patrol vessel------------	42 10	48 00	Berg (same as No. 3342).
3390	---do-----	Wuerttemberg-------------	42 41	50 18	Berg (same as No. 2937).
3391	---do-----	Caxton-------------------	44 39	48 53	Berg (same as No. 3287).
3392	---do-----	-----do-------------------	44 51	48 20	2 bergs (same as Nos. 3110 and 3111).
3393	---do-----	Nyon--------------------	46 01	47 52	Berg (same as No. 3204).
3394	---do-----	-----do-------------------	46 02	47 54	Do.
3395	---do-----	Cairnavon----------------	46 11	53 20	2 bergs (same as Nos. 3282 and 3351).
3396	---do-----	Transquebec--------------	46 31	53 28	Berg (same as No. 3296).
3397	---do-----	-----do-------------------	46 35	53 22	Berg (same as No. 3299).
3398	---do-----	-----do-------------------	46 38	52 50	Berg (same as No. 3360).
3399	---do-----	-----do-------------------	46 41	52 52	Berg (same as No. 3362).
3400	---do-----	-----do-------------------	46 52	52 33	Berg (same as No. 3367).
3401	---do-----	-----do-------------------	46 55	52 51	Berg (same as No. 3368).
3402	---do-----	-----do-------------------	47 00	52 42	Berg (same as No. 3372).
3403	---do-----	-----do-------------------	47 05	52 38	Berg (same as No. 3373).
3404	---do-----	-----do-------------------	47 08	52 16	3 bergs.
3405	---do-----	-----do-------------------	47 09	52 25	Do.
3406	---do-----	-----do-------------------	47 13	51 57	2 bergs (same as Nos. 3275 and 3276).
3407	---do-----	-----do-------------------	47 29	51 39	Berg (same as No. 3278).
3408	---do-----	-----do-------------------	47 37	51 36	3 bergs (same as Nos. 3277 and 3279).
3409	---do-----	-----do-------------------	47 47	51 15	Berg.
3410	---do-----	-----do-------------------	47 18	52 10	Growler.
3411	---do-----	USCGC Eastwind----------	46 31	53 21	2 bergs.
3412	---do-----	Marengo-----------------	46 31	54 31	2 bergs (same as No. 3374).
3413	---do-----	-----do-------------------	46 33	53 22	Berg (same as No. 3299).
3414	---do-----	-----do-------------------	46 34	53 17	Berg (same as No. 3376).
3415	---do-----	-----do-------------------	46 36	52 59	Berg (same as No. 3357).
3416	---do-----	-----do-------------------	46 37	52 54	Berg (same as No. 3359).
3417	---do-----	-----do-------------------	46 39	52 43	Berg (same as No. 3358).
3418	---do-----	-----do-------------------	46 39	52 45	Berg (same as No. 3356).
3419	---do-----	-----do-------------------	46 40	52 51	Berg (same as No. 3360).
3420	---do-----	-----do-------------------	46 42	52 48	Berg (same as No. 3362).
3421	---do-----	-----do-------------------	46 45	52 38	Berg (same as No. 3364).
3422	---do-----	-----do-------------------	46 45	52 57	Berg (same as No. 3363).
3423	---do-----	-----do-------------------	46 54	52 31	Berg (same as No. 3370).
3424	---do-----	-----do-------------------	47 01	52 18	Berg (same as No. 3316).
3425	---do-----	-----do-------------------	47 06	52 08	Berg (same as No. 3315).
3426	---do-----	-----do-------------------	47 09	52 03	Berg (same as No. 3406).
3427	---do-----	-----do-------------------	47 12	51 34	Berg (same as No. 3243).
3428	---do-----	-----do-------------------	47 20	51 26	Berg (same as No. 3318).
3429	---do-----	-----do-------------------	47 22	51 38	Berg (same as No. 3407).
3430	---do-----	-----do-------------------	47 23	51 24	Berg (same as No. 3317).
3431	---do-----	-----do-------------------	47 24	51 22	Do.
3432	---do-----	-----do-------------------	47 30	51 30	Berg (same as No. 3408).
3433	---do-----	Ocean Chief--------------	46 35	50 58	2 bergs (same as No. 3247).
3434	---do-----	Carl Julius---------------	Between 46 42 and 47 30	51 50 and 49 50	30 bergs (same as Nos. 3238, 3240, 3243, 3250, 3251, 3253, 3254, 3261, 3266, 3267, 3272, 3322 and 3379).
3435	---do-----	Unidentified vessel---------	46 55	50 54	Berg (same as No. 3261).
3436	---do-----	-----do-------------------	47 04	50 26	Do.
3437	---do-----	-----do-------------------	47 07	50 12	Do.
3438	---do-----	Skaubryn----------------	47 12	49 37	Berg (same as No. 3262).
3439	---do-----	-----do-------------------	47 15	49 50	Do.
3440	---do-----	-----do-------------------	47 20	49 30	Do.
3441	---do-----	Kingsbury---------------	Within 6-mile radius of 47 12	51 00	4 bergs (same as No. 3319).
3442	---do-----	-----do-------------------	47 27	50 20	2 bergs (same as No. 3319).
3443	---do-----	-----do-------------------	47 48	49 33	8 bergs (same as Nos. 3095, 3175, 3281, 3320, 3325 and 3385).
3444	---do-----	Carita-------------------	47 52	51 25	Berg.
3445	---do-----	-----do-------------------	47 55	51 11	Do.
3446	---do-----	Ingleby------------------	48 07	52 29	Do.
3447	---do-----	-----do-------------------	Vicinity of Baccalieu Island---		2 bergs.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3448	---do-----	Mormacpine	From 50 00 southward to shore	55 20	Numerous bergs.
3449	---do-----	-----do	From Fogo Island southward to shore.		Free of field ice.
3450	June 27	Ice Patrol plane	42 35	50 33	Radar target, probable berg (same as No. 3390).
3451	---do----	-----do	45 48	52 13	Berg (same as No. 3331).
3452	---do----	-----do	45 50	52 46	Berg (same as No. 3332).
3453	---do----	-----do	45 52	52 14	Berg (same as No. 3330).
3454	---do----	-----do	45 54	52 49	Berg (same as No. 3335).
3455	---do----	-----do	45 57	52 24	Berg (same as No. 3334).
3456	---do----	-----do	46 00	52 32	Berg (same as No. 3339).
3457	---do----	-----do	46 03	52 48	Berg (same as No. 3340).
3458	---do----	-----do	46 06	52 35	Berg (same as No. 3337).
3459	---do----	-----do	46 06	52 37	Berg (same as No. 3338).
3460	---do----	-----do	46 06	53 14	Berg (same as No. 3395).
3461	---do----	-----do	46 06	53 16	Do.
3462	---do----	-----do	46 08	53 38	Berg (same as No. 3352).
3463	---do----	-----do	46 08	53 34	Berg (same as No. 3353).
3464	---do----	-----do	46 09	52 33	Berg (same as No. 3305).
3465	---do----	-----do	46 11	53 19	Berg.
3466	---do----	-----do	46 12	52 55	Berg (same as No. 3308).
3467	---do----	-----do	46 13	53 11	Berg.
3468	---do----	-----do	46 13	53 14	Do.
3469	---do----	-----do	46 21	53 44	Do.
3470	---do----	-----do	46 25	52 23	Berg (same as No. 3411).
3471	---do----	-----do	46 29	53 35	Berg (same as No. 3396).
3472	---do----	-----do	46 33	53 33	Berg (same as No. 3397).
3473	---do----	Ice Patrol vessel	42 10	48 00	Berg (same as No. 3389).
3474	---do----	Montclaire	42 22	48 07	Berg (same as No. 3473).
3475	---do----	-----do	42 42	49 02	Berg (same as No. 3344).
3476	---do----	Olympic Hill	44 18	44 55	Berg (same as No. 3327).
3477	---do----	Raunala	44 36	48 20	Berg (same as No. 3392).
3478	---do----	-----do	44 37	48 48	Berg (same as No. 3391).
3479	---do----	-----do	44 38	48 18	Berg (same as No. 3392).
3480	---do----	Ryndam	45 10	48 21	Berg (same as No. 3108).
3481	---do----	-----do	45 16	48 37	Berg (same as No. 3111).
3482	---do----	-----do	45 20	48 31	Several growlers.
3483	---do----	-----do	45 35	46 59	Growler.
3484	---do----	Esso Pittsburgh	45 54	53 20	Berg (same as No. 3294).
3485	---do----	-----do	45 55	53 37	Berg.
3486	---do----	-----do	46 00	53 16	Berg (same as No. 3354).
3487	---do----	-----do	46 12	53 01	Berg (same as No. 3302).
3488	---do----	Albatross	Within 5-mile radius of 46 22	52 45	7 bergs (same as Nos. 3312 and 3313).
3489	---do----	-----do	46 52	49 27	Berg (same as No. 3148).
3490	---do----	-----do	46 52	49 47	Berg (same as No. 3152).
3491	---do----	-----do	46 54	49 43	Berg (same as No. 3153).
3492	---do----	-----do	46 57	49 17	Berg (same as No. 3154).
3493	---do----	-----do	47 00	49 12	Berg (same as No. 3155).
3494	---do----	-----do	47 10	49 30	Berg (same as No. 3438).
3495	---do----	-----do	47 13	49 16	Berg (same as No. 3082).
3496	---do----	-----do	47 14	49 04	Berg (same as No. 3075).
3497	---do----	Mapledell	46 41	51 42	Berg (same as No. 3434).
3498	---do----	-----do	46 41	51 49	Do.
3499	---do----	-----do	46 42	51 33	Do.
3500	---do----	-----do	46 42	51 47	Do.
3501	---do----	-----do	46 44	52 11	Berg (same as No. 3311).
3502	---do----	-----do	46 47	52 13	Berg (same as No. 3307).
3503	---do----	-----do	46 50	51 25	Berg (same as No. 3434).
3504	---do----	-----do	46 50	51 54	Berg (same as No. 3314).
3505	---do----	-----do	46 51	51 50	Berg (same as No. 3434).
3506	---do----	-----do	46 55	51 28	Do.
3507	---do----	-----do	46 59	51 35	Berg (same as No. 3317).
3508	---do----	-----do	47 00	51 38	Do.
3509	---do----	-----do	47 02	51 23	Do.
3510	---do----	-----do	47 03	50 53	Berg (same as No. 3441).
3511	---do----	-----do	47 11	50 56	Do.
3512	---do----	-----do	47 15	50 27	Berg (same as No. 3434).
3513	---do----	-----do	47 17	49 52	Berg (same as No. 3439).
3514	---do----	-----do	47 18	50 05	Berg (same as No. 3434).
3515	---do----	-----do	47 19	50 33	Do.
3516	---do----	-----do	47 21	49 29	Berg (same as No. 3440).
3517	---do----	-----do	47 21	49 42	Berg (same as No. 3434).
3518	---do----	-----do	47 23	49 48	Do.
3519	---do----	-----do	47 33	49 47	Do.
3520	---do----	-----do	47 35	49 34	Berg (same as No. 3319).
3521	---do----	USCGC Mackinac	46 44	54 28	2 bergs (same as No. 3412).
3522	---do----	Beaverford	47 00	50 27	Berg (same as No. 3436).
3523	---do----	-----do	47 04	50 32	Berg (same as No. 3261).

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
3524	---do-----	-----do---	47	04	50	49	Berg (same as No. 3510).
3525	---do-----	-----do---	47	06	50	05	Berg (same as No. 3437).
3526	---do-----	-----do---	47	07	49	55	Berg (same as No. 3156).
3527	---do-----	-----do---	47	07	50	14	Berg (same as No. 3261).
3528	---do-----	-----do---	47	07	50	34	Do.
3529	---do-----	-----do---	47	10	49	53	Do.
3530	---do-----	-----do---	47	11	50	02	Do.
3531	---do-----	-----do---	47	13	49	36	Berg (same as No. 3262).
3532	---do-----	-----do---	47	17	50	26	Berg (same as No. 3512).
3533	---do-----	-----do---	47	20	49	57	Berg (same as No. 3434).
3534	---do-----	-----do---	47	23	49	40	Berg (same as No. 3262).
3535	---do-----	-----do---	47	44	48	50	Berg.
3536	---do-----	Leabeth	48	24	51	20	Berg.
3537	---do-----	USNS Memphis	52	20	54	10	2 bergs.
3538	---do-----	Tuebingen	42	18	46	11	Growler.
3539	---do-----	USN plane	46	44	54	23	2 bergy bits.
3540	June 28	Ice Patrol vessel	42	28	48	08	Berg (same as No. 3473)
3541	---do-----	Irish Oak	42	41	48	49	Berg (same as No. 3475).
3542	---do-----	-----do---	42	47	49	30	Berg (same as No. 3345).
3543	---do-----	-----do---	42	52	48	48	Berg (same as No. 3343).
3544	---do-----	Italia	42	46	51	21	Berg (same as No. 3449).
3545	---do-----	Orione	44	36	45	30	Berg (same as No. 3328).
3546	---do-----	Homeric	45	38	47	15	Berg (same as No. 3195).
3547	---do-----	-----do---	45	47	51	44	Berg (same as No. 3329).
3548	---do-----	-----do---	45	48	52	18	Berg (same as No. 3451).
3549	---do-----	-----do---	45	59	52	25	2 bergs (same as Nos. 3455 and 3456).
3550	---do-----	Olympic Hill	45	50	51	39	Berg (same as No. 3547).
3551	---do-----	Albatross	46	08	53	00	Berg (same as No. 3466).
3552	---do-----	-----do---	Within 4-mile radius of 46	14	53	24	4 bergs (same as Nos. 3463, 3465, 3467 and 3468).
3553	---do-----	Gyda Torm	46	12	53	45	3 bergs (same as Nos. 3462, 3469 and 3471).
3554	---do-----	Beaverburn	46	29	53	11	Berg (same as No. 3415).
3555	---do-----	-----do---	46	30	53	37	Berg (same as No. 3472).
3556	---do-----	-----do---	46	31	53	10	Berg (same as No. 3416).
3557	---do-----	-----do---	46	32	52	48	Berg (same as No. 3418).
3558	---do-----	-----do---	46	38	52	51	Berg (same as No. 3421).
3559	---do-----	-----do---	46	39	52	52	Berg (same as No. 3422).
3560	---do-----	-----do---	46	40	52	19	Berg (same as No. 3501).
3561	---do-----	-----do---	46	42	52	14	Berg (same as No. 3502).
3562	---do-----	-----do---	46	42	52	52	Berg (same as No. 3399).
3563	---do-----	-----do---	46	46	52	14	Berg (same as No. 3341).
3564	---do-----	-----do---	46	46	52	22	Berg (same as No. 3423).
3565	---do-----	-----do---	46	50	52	22	Berg (same as No. 3424).
3566	---do-----	Beaverford	46	42	52	52	Berg (same as No. 3562).
3567	---do-----	-----do---	46	44	52	50	Berg (same as No. 3361).
3568	---do-----	-----do---	46	45	52	50	Berg (same as No. 3366).
3569	---do-----	-----do---	46	47	52	40	Berg (same as No. 3365).
3570	---do-----	-----do---	46	50	51	37	Berg (same as No. 3506).
3571	---do-----	-----do---	46	54	51	53	Berg (same as No. 3504).
3572	---do-----	-----do---	47	01	51	30	Berg (same as No. 3509).
3573	---do-----	-----do---	47	03	51	04	Berg (same as No. 3441).
3574	---do-----	-----do---	46	44	52	52	Growler.
3575	---do-----	-----do---	47	02	51	46	Do.
3576	---do-----	Desdemona	46	50	52	10	Berg (same as No. 3434).
3577	---do-----	-----do---	47	36	51	00	Berg (same as No. 3409).
3578	---do-----	Bergensfjord	46	58	51	51	2 bergs (same as Nos. 3590 and 3591).
3579	---do-----	-----do---	47	00	51	39	Berg (same as No. 3508).
3580	---do-----	-----do---	47	02	51	52	Berg (same as No. 3317).
3581	---do-----	-----do---	47	07	51	43	3 bergs (same as No. 3317).
3582	---do-----	-----do---	47	13	51	02	3 bergs (same as No. 3319).
3583	---do-----	-----do---	47	15	51	23	3 bergs (same as No. 3317).
3584	---do-----	-----do---	47	18	51	05	Berg (same as No. 3319).
3585	---do-----	-----do---	47	19	50	30	Berg (same as No. 3515).
3586	---do-----	-----do---	47	21	50	21	Berg (same as No. 3380).
3587	---do-----	-----do---	47	24	50	32	Berg (same as No. 3319).
3588	---do-----	-----do---	47	25	50	19	Berg (same as No. 3442).
3589	---do-----	-----do---	47	39	50	26	Berg (same as No. 3382).
3590	---do-----	Empress of Scotland	47	01	51	56	Berg (same as No. 3426).
3591	---do-----	-----do---	47	03	51	59	Berg (same as No. 3425).
3592	June 29	Ice Patrol vessel	42	39	48	03	Berg (same as No. 3540).
3593	---do-----	Italia	43	18	48	33	Radar target, probable berg (same as No. 3187).
3594	---do-----	-----do---	43	19	48	40	Radar target, probable berg (same as No. 3182).
3595	---do-----	-----do---	43	32	48	37	Radar target, probable berg (same as No. 3540).
3596	---do-----	North America	43	26	48	58	Berg (same as No. 3101).
3597	---do-----	-----do---	43	30	49	05	Growler.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3598	---do----	George Steers	44 02	44 44	Berg (same as No. 3477).
3599	---do----	Leanna	45 11	48 45	Berg (same as No. 3482).
3600	---do----	Unidentified vessel	45 24	48 52	Berg (same as No. 3289).
3601	---do----	Lorna	45 35	51 50	Berg (same as No. 3453).
3602	---do----	Lakonia	46 00	54 10	Berg (same as No. 3485).
3603	---do----	-----do	From 46 03 to 46 04	54 00 to 53 22	17 bergs (same as Nos. 3400, 3558, 3559, 3562, 3569, 3580, 3581 and 3583).
3604	---do----	-----do	47 18	49 30	Berg (same as No. 3516).
3605	---do----	Manchester Pioneer	46 08	48 37	Berg (same as No. 3146).
3606	---do----	-----do	46 08	48 47	Berg (same as No. 3140).
3607	---do----	-----do	46 17	48 10	Berg (same as No. 3207).
3608	---do----	-----do	46 01	51 27	Growler.
3609	---do----	Stavangerfjord	46 23	53 34	2 bergs (same as Nos. 3470 and 3555).
3610	---do----	USCGC Mackinac	46 30	53 12	Berg (same as No. 3554).
3611	---do----	-----do	46 32	53 12	Berg (same as No. 3556).
3612	---do----	-----do	46 34	52 48	Berg (same as No. 3557).
3613	---do----	-----do	46 35	53 53	Berg.
3614	---do----	-----do	46 35	52 43	Berg (same as No. 3400).
3615	---do----	-----do	46 36	52 50	Berg (same as No. 3558).
3616	---do----	-----do	46 42	52 38	Berg (same as No. 3569).
3617	---do----	-----do	46 58	51 56	Berg (same as No. 3581).
3618	---do----	-----do	46 58	51 58	Berg (same as No. 3580).
3619	---do----	-----do	47 02	51 58	Berg (same as No. 3591).
3620	---do----	-----do	47 11	51 45	Berg (same as No. 3429).
3621	---do----	-----do	47 13	51 49	Berg (same as No. 3406).
3622	---do----	-----do	47 14	51 41	Berg (same as No. 3428).
3623	---do----	-----do	47 15	51 20	Berg (same as No. 3583).
3624	---do----	-----do	47 15	51 26	Do.
3625	---do----	-----do	47 23	51 35	Berg (same as No. 3432).
3626	---do----	-----do	47 27	51 47	Berg (same as No. 3408).
3627	---do----	-----do	47 30	51 32	Do.
3628	---do----	-----do	47 56	51 40	Berg.
3629	---do----	USN plane	46 34	51 20	Berg (same as No. 3500).
3630	---do----	Robin Gray	46 36	52 43	Berg (same as No. 3400).
3631	---do----	-----do	46 42	52 32	Berg (same as No. 3564).
3632	---do----	-----do	46 56	52 16	2 bergs (same as No. 3404).
3633	---do----	-----do	46 50	52 33	Several growlers.
3634	---do----	-----do	47 40	50 46	Berg (same as No. 3384).
3635	---do----	Themisto	46 43	52 50	2 bergs (same as Nos. 3559 and 3562).
3636	---do----	Christensen	47 17	49 25	Berg (same as No. 3516).
3637	---do----	Clintonia	45 22	48 55	Growler.
3638	---do----	-----do	45 38	47 27	Do.
3639	June 30	Ice Patrol vessel	43 12	48 18	Berg (same as No. 3592).
3640	July 1	Mormacpenn	42 06	51 31	Radar target, possible berg.
3641	---do----	Maria Schulte	46 19	53 52	Berg (same as No. 3609).
3642	July 2	Ice Patrol plane	47 00	52 45	Berg (same as No. 3402).
3643	---do----	-----do	47 04	52 50	Berg (same as No. 3369).
3644	---do----	-----do	47 06	52 50	Berg (same as No. 3371).
3645	---do----	-----do	47 10	52 50	Berg (same as No. 3372).
3646	---do----	Empress of Britain	46 31	53 36	Berg (same as No. 3401).
3647	---do----	-----do	46 33	53 23	Berg (same as No. 3422).
3648	---do----	-----do	46 34	53 20	Berg (same as No. 3559).
3649	---do----	-----do	46 34	53 13	Berg (same as No. 3611).
3650	---do----	-----do	46 34	53 18	Berg (same as No. 3610).
3651	---do----	-----do	46 52	52 37	Berg (same as No. 3403).
3652	---do----	USAF plane	43 08	50 10	Berg (same as No. 3542).
3653	---do----	Constantia	47 05	52 20	Berg (same as No. 3405).
3654	---do----	-----do	47 44	52 28	Berg.
3655	---do----	-----do	47 53	52 25	Do.
3656	July 3	USCGC Half Moon	47 44	52 18	Do.
3657	---do----	-----do	47 20	52 22	3 growlers.
3658	---do----	-----do	46 30	53 00	Numerous growlers.
3659	---do----	Parkersburg	51 21	54 28	Berg.
3660	---do----	-----do	52 50	54 10	Scattered growlers.
3661	---do----	Beaverlake	47 07	50 48	Growler.
3662	July 4	Star of Assuan	43 09	50 15	Berg (same as No. 3646).
3663	---do----	Constantia	46 27	53 16	Berg (same as No. 3567).
3664	---do----	-----do	46 30	53 48	Berg (same as No. 3647).
3665	---do----	Empress of England	46 28	53 48	Berg (same as No. 3647).
3666	---do----	-----do	46 30	53 54	Berg (same as No. 3609).
3667	---do----	-----do	46 31	53 04	Berg (same as No. 3630).
3668	---do----	-----do	46 31	53 36	Berg (same as No. 3648).
3669	---do----	-----do	46 36	53 12	Berg (same as No. 3612).
3670	---do----	-----do	46 36	53 25	Berg (same as No. 3649).
3671	---do----	-----do	46 37	53 12	Berg (same as No. 3635).
3672	---do----	-----do	46 38	53 26	Berg (same as No. 3651).
3673	---do----	-----do	46 39	53 17	Berg (same as No. 3650).

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
3674	---do-----	-----do-----	46	41	53	55	Berg (same as No. 3615).
3675	---do-----	-----do-----	46	42	52	41	2 bergs, 4 growlers (same as Nos. 3616 and 3631).
3676	---do-----	-----do-----	46	42	54	11	Berg (same as No. 3613).
3677	---do-----	-----do-----	46	45	52	54	Berg (same as No. 3635).
3678	---do-----	-----do-----	46	46	52	41	Berg, 6 growlers (same as No. 4569).
3679	---do-----	-----do-----	46	50	52	35	Berg (same as No. 3565).
3680	---do-----	-----do-----	47	03	52	02	Berg (same as No. 3621).
3681	---do-----	-----do-----	47	07	51	48	Berg and growler (same as No. 3581).
3682	---do-----	-----do-----	47	08	51	47	Berg (same as No. 3581).
3683	---do-----	-----do-----	47	11	51	43	Berg (same as No. 3620).
3684	---do-----	-----do-----	47	11	51	37	Berg (same as No. 3583).
3685	---do-----	-----do-----	47	19	51	38	Berg (same as No. 3625).
3686	---do-----	-----do-----	47	24	51	27	Berg (same as No. 3431).
3687	---do-----	-----do-----	47	27	51	00	Berg (same as No. 3444).
3688	---do-----	-----do-----	47	32	51	11	Berg (same as No. 3577).
3689	---do-----	-----do-----	46	46	52	47	Growler.
3690	---do-----	-----do-----	Between Cape St. Mary and Cape Race.				Many growlers.
3691	---do-----	-----do-----	47	11	51	43	Growler.
3692	---do-----	Cairndhu-----	6 miles south of Cape Pine----				Berg, 20 growlers (same as No. 3647).
3693	---do-----	Trewidden-----	47	16	50	38	6 bergs, many growlers (same as Nos. 3434 and 3511).
3694	---do-----	Gertrude Fritzen-----	47	24	49	50	Berg (same as No. 3533).
3695	---do-----	Alcyone-----	47	25	49	49	Berg, 3 growlers (same as No. 3694).
3696	---do-----	Empress of England-----	Within 10 miles of track between 47 26 and 48 09		50 52 / 49 41		11 bergs (same as Nos. 3381, 3383, 3431, 3582, 3584, 3589, 3634 and 3687).
3697	---do-----	Dunadd-----	47	38	50	23	Berg (same as No. 3589).
3698	---do-----	-----do-----	47	57	49	43	Berg (same as No. 3696).
3699	---do-----	Donatella Partodi-----	47	54	50	13	2 bergs (same as No. 3696).
3700	---do-----	Monrosa-----	47	57	51	20	Berg.
3701	---do-----	-----do-----	48	08	51	16	Do.
3702	---do-----	Brighton-----	48	00	49	15	Do.
3703	July 5	Ice Patrol vessel-----	42	37	49	48	Berg (same as No. 3543).
3704	---do-----	-----do-----	42	49	49	43	Berg (same as No. 3541).
3705	---do-----	-----do-----	42	55	49	48	Berg (same as No. 3542).
3706	---do-----	-----do-----	42	56	49	49	Growler.
3707	---do-----	Gertrude Fritzen-----	46	24	52	48	Berg and growlers (same as No. 3563).
3708	---do-----	-----do-----	46	26	52	46	Berg (same as No. 3561).
3709	---do-----	-----do-----	47	29	52	43	Berg.
3710	---do-----	-----do-----	46	30	52	42	Berg (same as No. 3560).
3711	---do-----	-----do-----	46	58	51	50	Berg and growlers (same as No. 3619).
3712	---do-----	-----do-----	47	01	50	59	3 bergs (same as Nos. 3573, 3582 and 3623).
3713	---do-----	-----do-----	47	04	50	40	Berg (same as No. 3693).
3714	---do-----	-----do-----	47	04	51	35	Do.
3715	---do-----	-----do-----	47	06	50	50	Do.
3716	---do-----	-----do-----	47	10	50	52	2 bergs (same as No. 3696).
3717	---do-----	Fort Avalon-----	46	27	53	46	Berg (same as No. 3664).
3718	---do-----	Alcyone-----	46	45	52	10	Berg (same as No. 3632).
3719	---do-----	-----do-----	46	53	51	37	Berg (same as No. 3579).
3720	---do-----	-----do-----	47	00	51	28	Berg (same as No. 3623).
3721	---do-----	Oslofjord-----	Between 47 12 and 47 22		51 52 / 51 40		4 bergs (same as Nos. 3622, 3626 and 3627).
3722	---do-----	-----do-----	Between 47 30 and 48 10		51 35 / 50 30		7 bergs (same as Nos. 3628 and 3700).
3723	---do-----	Plymouth Rock-----	48	39	51	52	Berg.
3724	---do-----	Canadian Department of Transport.	From Belle Isle to 52 00 to 50 45		55 00 / 55 45		Eastern limits of field ice.
3725	---do-----	-----do-----	From Belle Isle to Cape Bauld				Heavy field ice, 60 percent cover.
3726	---do-----	-----do-----	From Belle Isle to Labrador coast.				Field ice, 20 percent cover.
3727	July 6	Ice Patrol vessel-----	42	41	50	10	Berg (same as No. 3703).
3728	---do-----	Arosa Sun-----	46	33	52	14	Berg (same as No. 3576).
3729	---do-----	-----do-----	47	04	50	46	Berg (same as No. 3810).
3730	---do-----	Dundee-----	46	36	53	55	2 bergs (same as Nos. 3665 and 3666).
3731	July 7	Ice Patrol plane-----	42	33	50	38	Berg (same as No. 3727).
3732	---do-----	-----do-----	46	18	52	56	Berg (same as No. 3708).
3733	---do-----	-----do-----	46	19	52	43	Berg (same as No. 3710).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3734	---do----	-----do-------------------	46 19	52 45	Berg (same as No. 3707).
3735	---do----	-----do-------------------	46 22	53 22	Berg (same as No. 3663).
3736	---do----	-----do-------------------	46 27	53 25	Berg (same as No. 3667).
3737	---do----	-----do-------------------	46 29	52 41	Berg (same as No. 3718).
3738	---do----	-----do-------------------	46 31	53 13	Berg (same as No. 3669).
3739	---do----	-----do-------------------	46 32	53 50	Berg (same as No. 3670).
3740	---do----	-----do-------------------	46 33	53 41	Berg (same as No. 3672).
3741	---do----	-----do-------------------	46 38	53 03	Berg (same as No. 3678).
3742	---do----	Ice Patrol vessel-----------	42 27	50 26	Berg (same as No. 3703).
3743	---do----	Ivernia-------------------	46 18	52 43	Berg (same as No. 3733).
3744	---do----	-----do-------------------	46 30	53 18	Berg (same as No. 3675).
3745	---do----	-----do-------------------	46 31	53 51	Berg (same as No. 3739).
3746	---do----	Sylvania------------------	46 27	53 48	Berg (same as No. 3739).
3747	---do----	-----do-------------------	46 36	53 09	Berg (same as No. 3677).
3748	---do----	-----do-------------------	46 42	52 46	Berg (same as No. 3679).
3749	---do----	-----do-------------------	46 46	52 47	Berg (same as No. 3642).
3750	---do----	-----do-------------------	46 54	52 02	Berg (same as No. 3721).
3751	---do----	-----do-------------------	46 59	52 00	Berg (same as No. 3619).
3752	---do----	-----do-------------------	47 07	51 39	Berg (same as No. 3721).
3753	---do----	-----do-------------------	47 07	51 45	Berg (same as No. 3683).
3754	---do----	-----do-------------------	47 13	51 38	Berg (same as No. 3722).
3755	---do----	-----do-------------------	47 15	51 39	Do.
3756	---do----	-----do-------------------	47 19	51 28	Berg (same as No. 3686).
3757	---do----	-----do-------------------	47 25	50 28	Berg (same as No. 3696).
3758	---do----	-----do-------------------	47 26	50 39	Berg (same as No. 3728).
3759	---do----	-----do-------------------	47 27	50 46	Berg (same as No. 3722).
3760	---do----	-----do-------------------	47 30	50 35	Berg (same as No. 3751).
3761	---do----	-----do-------------------	47 32	50 00	Berg (same as No. 3696).
3762	---do----	-----do-------------------	47 36	50 13	Do.
3763	---do----	-----do-------------------	47 38	50 28	Berg.
3764	---do----	-----do-------------------	47 52	49 57	Do.
3765	---do----	-----do-------------------	47 54	49 42	Do.
3766	---do----	Arabia--------------------	Within 10 miles of track from 47 40 to 46 30	50 01 to 52 30	11 bergs (same as Nos. 3696, 3721, 3750–3754 and 3756).
3767	---do----	-----do-------------------	48 07	48 43	Berg.
3768	---do----	Berylstone----------------	46 30	53 40	Berg (same as No. 3740).
3769	---do----	-----do-------------------	46 30	53 50	Berg (same as No. 3739).
3770	---do----	Transpacific--------------	46 42	52 47	Berg (same as No. 3679).
3771	---do----	-----do-------------------	47 23	51 44	Berg (same as No. 3722).
3772	---do----	-----do-------------------	47 27	51 46	Do.
3773	---do----	-----do-------------------	47 28	51 48	Do.
3774	---do----	-----do-------------------	47 32	51 55	Berg (same as No. 3656).
3775	---do----	-----do-------------------	47 37	51 40	2 bergs (same as Nos. 3754 and 3755).
3776	---do----	-----do-------------------	47 37	51 52	Berg.
3777	---do----	-----do-------------------	47 43	51 36	Do.
3778	---do----	Rialto--------------------	46 55	52 08	Berg (same as No. 3766).
3779	---do----	-----do-------------------	46 40	52 30	3 growlers.
3780	---do----	Brighton------------------	47 33	51 44	4 bergs (same as Nos. 3773–3775).
3781	---do----	-----do-------------------	47 40	51 40	2 bergs (same as No. 3777).
3782	---do----	-----do-------------------	47 36	51 38	Berg.
3783	---do----	-----do-------------------	47 47	51 17	Do.
3784	---do----	Makefjell-----------------	47 59	50 25	Do.
3785	---do----	-----do-------------------	48 00	50 38	Do.
3786	---do----	-----do-------------------	48 02	50 08	Do.
3787	---do----	USCGC Duane--------------	48 00 and to northward	50 00	Scattered bergs and growlers.
3788	---do----	Brighton------------------	48 14	51 05	Berg.
3789	---do----	-----do-------------------	48 17	51 05	Do.
3790	---do----	Anastassios Pateras--------	48 25	50 02	Do.
3791	---do----	-----do-------------------	48 25	50 07	Do.
3792	---do----	Athens--------------------	47 10	49 32	Several large growlers.
3793	---do----	Canadian Department of Transport.	From Cape Bauld to Belle Isle to Cape Norman.		Heavy field ice, 40 percent cover.
3794	---do----	-----do-------------------	From 52 05 to Belle Isle	55 50	Partial northern limits field ice.
3795	July 8	Ice Patrol plane-----------	46 50	50 07	Berg (same as No. 3588).
3796	---do----	-----do-------------------	46 50	51 52	Berg (same as No. 3751).
3797	---do----	-----do-------------------	46 51	52 06	Berg (same as No. 3680).
3798	---do----	-----do-------------------	46 56	52 03	Berg (same as No. 3681).
3799	---do----	-----do-------------------	46 57	52 19	Berg (same as No. 3771).
3800	---do----	-----do-------------------	46 58	51 51	Berg (same as No. 3773).
3801	---do----	-----do-------------------	46 58	50 11	Berg (same as No. 3696).
3802	---do----	-----do-------------------	47 00	48 48	Berg (same as No. 3520).
3803	---do----	-----do-------------------	47 00	52 48	Berg (same as No. 3643).
3804	---do----	-----do-------------------	47 00	52 51	Berg (same as No. 3644).

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
3805	---do----	-----do----	47	01	51	51	Berg (same as No. 3684).
3806	---do----	-----do----	47	04	51	10	Berg (same as No. 3688).
3807	---do----	-----do----	47	04	51	44	Berg (same as No. 3754).
3808	---do----	-----do----	47	04	51	51	Berg (same as No. 3753).
3809	---do----	-----do----	47	04	47	04	Radar target, probable berg (same as No. 3535).
3810	---do----	-----do----	47	05	52	18	Berg (same as No. 3721).
3811	---do----	-----do----	47	05	46	44	Radar target, probable berg.
3812	---do----	-----do----	47	08	50	03	Berg (same as No. 3763).
3813	---do----	-----do----	47	08	52	32	Berg (same as No. 3774).
3814	---do----	-----do----	47	09	52	00	Berg (same as No. 3654).
3815	---do----	-----do----	47	10	50	26	Berg (same as No. 3693).
3816	---do----	-----do----	47	10	50	30	Do.
3817	---do----	-----do----	47	10	51	44	Berg (same as No. 3721).
3818	---do----	-----do----	47	13	50	24	Berg (same as No. 3766).
3819	---do----	-----do----	47	13	51	37	Do.
3820	---do----	-----do----	47	14	51	58	Berg (same as No. 3780).
3821	---do----	-----do----	47	16	51	29	Do.
3822	---do----	-----do----	47	17	51	54	Do.
3823	---do----	-----do----	47	18	51	12	Berg (same as No. 3766).
3824	---do----	-----do----	47	18	52	18	Berg (same as No. 3655).
3825	---do----	-----do----	47	19	51	55	Berg (same as No. 3781).
3826	---do----	-----do----	47	20	51	46	Do.
3827	---do----	-----do----	47	21	46	44	Radar target, probable berg.
3828	---do----	-----do----	47	21	50	40	Berg (same as No. 3759).
3829	---do----	-----do----	47	22	48	25	Radar target, probable berg (same as No. 3701).
3830	---do----	-----do----	47	26	48	14	Radar target, probable berg.
3831	---do----	-----do----	47	28	49	35	Berg (same as No. 3696).
3832	---do----	-----do----	47	28	50	40	Berg (same as No. 3758).
3833	---do----	-----do----	47	29	46	50	Radar target, probable berg.
3834	---do----	-----do----	47	29	49	04	Berg (same as No. 3765).
3835	---do----	-----do----	47	29	51	31	Berg (same as No. 3782).
3836	---do----	-----do----	47	30	49	00	Berg.
3837	---do----	-----do----	47	31	50	12	Berg (same as No. 3766).
3838	---do----	-----do----	47	31	50	31	Berg (same as No. 3757).
3839	---do----	-----do----	47	31	50	37	Berg.
3840	---do----	-----do----	47	31	50	43	Berg (same as No. 3786).
3841	---do----	-----do----	47	31	51	46	Berg (same as No. 3766).
3842	---do----	-----do----	47	33	48	59	Berg.
3843	---do----	-----do----	47	37	48	20	Radar target, probable berg (same as No. 3767).
3844	---do----	-----do----	47	38	51	12	Radar target, probable berg (same as No. 3783).
3845	---do----	-----do----	47	38	51	35	Berg.
3846	---do----	-----do----	47	39	50	48	Radar target, probable berg.
3847	---do----	-----do----	47	39	51	00	Do.
3848	---do----	-----do----	47	41	51	08	Do.
3849	---do----	-----do----	47	41	51	27	Do.
3850	---do----	-----do----	47	41	51	30	Radar target, probable berg (same as No. 3723).
3851	---do----	-----do----	47	42	49	21	Berg.
3852	---do----	-----do----	47	42	51	02	Radar target, probable berg.
3853	---do----	-----do----	47	45	49	44	Berg (same as No. 3764).
3854	---do----	-----do----	47	46	51	18	Radar target, probable berg.
3855	---do----	-----do----	47	46	51	14	Do.
3856	---do----	-----do----	47	48	49	56	Berg.
3857	---do----	-----do----	47	48	51	04	Radar target, probable berg.
3858	---do----	-----do----	47	49	49	48	Do.
3859	---do----	-----do----	47	49	50	15	Radar target, probable berg (same as No. 3784).
3860	---do----	-----do----	47	50	49	39	Berg.
3861	---do----	-----do----	47	51	50	22	Radar target, probable berg.
3862	---do----	-----do----	47	54	49	07	Berg.
3863	---do----	-----do----	47	55	49	59	Do.
3864	---do----	-----do----	47	55	50	20	Radar target, probable berg.
3865	---do----	-----do----	47	56	49	53	Do.
3866	---do----	-----do----	47	56	50	11	Berg.
3867	---do----	-----do----	47	58	49	49	Radar target, probable berg.
3868	---do----	-----do----	48	00	47	33	Berg.
3869	---do----	-----do----	48	00	48	48	Do.
3870	---do----	-----do----	48	01	49	00	Do.
3871	---do----	-----do----	48	05	50	04	Do.
3872	---do----	-----do----	48	06	47	41	Do.
3873	---do----	-----do----	48	07	49	00	Do.
3874	---do----	-----do----	48	08	47	42	Do.
3875	---do----	-----do----	48	08	48	31	Do.
3876	---do----	-----do----	48	08	50	08	Do.
3877	---do----	-----do----	48	08	50	15	Radar target, probable berg.
3878	---do----	-----do----	48	09	47	42	Berg.
3879	---do----	-----do----	48	12	49	25	Do.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3880	---do----	-----do-----------------	48 17	49 52	Do.
3881	---do----	-----do-----------------	48 19	49 59	Do.
3882	---do----	-----do-----------------	48 19	50 10	Do.
3883	---do----	-----do-----------------	48 22	49 50	Radar target, probable berg.
3884	---do----	-----do-----------------	48 25	49 49	Do.
3885	---do----	-----do-----------------	Between Ferryland and Cape Spear within 5 miles of coast.		16 bergs (same as No. 3645).
3886	---do----	Ice Patrol vessel----------	42 18	50 40	Berg (same as No. 3742).
3887	---do----	Brighton---------------	46 24	53 51	Berg (same as No. 3740).
3888	---do----	Carinthia---------------	46 29	53 15	Berg (same as No. 3738).
3889	---do----	-----do-----------------	46 30	53 45	Berg (same as No. 3711).
3890	---do----	-----do-----------------	46 33	53 38	Berg (same as No. 3670).
3891	---do----	-----do-----------------	46 54	51 53	Berg (same as No. 3751).
3892	---do----	-----do-----------------	47 05	51 48	Berg (same as No. 3754).
3893	---do----	-----do-----------------	47 06	51 12	Berg (same as No. 3688).
3894	---do----	-----do-----------------	47 06	51 44	Berg (same as No. 3753).
3895	---do----	-----do-----------------	47 26	50 30	Berg (same as No. 3757).
3896	---do----	-----do-----------------	47 26	50 34	Berg (same as No. 3758).
3897	---do----	-----do-----------------	47 28	50 43	Berg (same as No. 3759).
3898	---do----	-----do-----------------	47 33	50 41	Berg (same as No. 3839).
3899	---do----	-----do-----------------	47 41	50 31	Berg (same as No. 3786).
3900	---do----	-----do-----------------	47 52	50 00	Berg.
3901	---do----	-----do-----------------	47 55	49 36	Berg (same as No. 3696).
3902	---do----	Athens------------------	46 30	52 40	Berg (same as No. 3653).
3903	---do----	Facto-------------------	46 31	53 17	Berg (same as No. 3744).
3904	---do----	Makefjell---------------	Between lats. 46°50′ N. and 47°30′ N. and longs. 51°10′ W. and 52°20′ W.		14 bergs.
3905	---do----	Grootebeer--------------	Between 47 04 and 47 29	51 45 and 50 30	10 bergs.
3906	---do----	-----do-----------------	47 32	50 32	Berg (same as No. 3762).
3907	---do----	Vassijaure--------------	48 18	50 06	Berg.
3908	---do----	Canadian Department of Transport.	From Cape Norman to Belle Isle to Cape Bauld.		Field ice, 30 percent cover, with heavy patches.
3909	---do----	-----do-----------------	North side of Strait of Belle Isle.		Favorable for daylight navigation.
3910	July 9	Ice Patrol vessel----------	42 10	50 13	Berg (same as No. 3886).
3911	---do----	Fanad Head--------------	46 17	53 58	Berg (same as No. 3887).
3912	---do----	-----do-----------------	46 30	53 22	Berg (same as No. 3903).
3913	---do----	-----do-----------------	46 32	53 15	Berg (same as No. 3888).
3914	---do----	-----do-----------------	47 09	50 55	Berg (same as No. 3828).
3915	---do----	New York----------------	46 26	53 35	Berg (same as No. 3736).
3916	---do----	-----do-----------------	46 42	52 42	Berg (same as No. 3748).
3917	---do----	-----do-----------------	46 54	51 52	Berg (same as No. 3800).
3918	---do----	-----do-----------------	47 02	51 45	Berg (same as No. 3807).
3919	---do----	-----do-----------------	47 39	49 56	Berg (same as No. 3856).
3920	---do----	-----do-----------------	47 41	49 48	Berg (same as No. 3865).
3921	---do----	-----do-----------------	47 48	50 02	Berg (same as No. 3866).
3922	---do----	Cairngowan--------------	From 46 36 to 47 10	53 07 to 52 06	10 bergs (same as Nos. 3677, 3741, 3747, 3799, 3803, 3810, 3813, 3814, 3824 and 3916).
3923	---do----	-----do-----------------	From 47 12 to 47 44	52 02 to 51 06	1 berg, 5 growlers (same as No. 3845).
3924	---do----	Beaverlodge-------------	46 51	51 58	Berg (same as No. 3797).
3925	---do----	-----do-----------------	46 57	51 50	Berg (same as No. 3917).
3926	---do----	-----do-----------------	46 57	51 56	2 bergs (same as Nos. 3798 and 3805).
3927	---do----	-----do-----------------	47 43	51 43	Berg.
3928	---do----	Stanbell----------------	47 45	49 52	Berg (same as No. 3863).
3929	---do----	-----do-----------------	47 48	49 35	Berg (same as No. 3901).
3930	---do----	-----do-----------------	48 10	46 12	Berg.
3931	---do----	Gorthon-----------------	50 00	52 20	Do.
3932	July 10	Ice Patrol vessel----------	42 08	50 08	Berg (same as No. 3910).
3933	---do----	Unidentified vessel--------	46 31	53 47	Berg.
3934	---do----	Baron Geddes------------	47 55	51 20	2 bergs, 11 growlers.
3935	---do----	Canadian Department of Transport.	Entrance to Strait of Belle Isle.		Scattered loose field ice, containing numerous bergs and growlers.
3936	July 11	Ice Patrol vessel----------	42 17	50 13	Berg (same as No. 3932).
3937	---do----	Vassijaure--------------	48 04	52 24	Berg.
3938	---do----	Lyngenfjord-------------	48 38	44 10	Radar target, probable berg.
3939	---do----	Ice Patrol plane-----------	42 42	50 45	Radar target, possible berg.
3940	---do----	-----do-----------------	42 46	50 45	Do.
3941	---do----	-----do-----------------	46 22	53 22	Berg (same as No. 3735).
3942	---do----	-----do-----------------	46 26	53 11	Berg (same as No. 3888).
3943	---do----	-----do-----------------	46 26	52 30	Berg (same as No. 3737).

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
3944	---do-----	-----do-------------------	46 27	53 15	Berg (same as No. 3922).
3945	---do-----	-----do-------------------	46 28	53 17	Berg (same as No. 3912).
3946	---do-----	-----do-------------------	46 46	52 58	Berg (same as No. 3922).
3947	---do-----	-----do-------------------	46 50	52 55	Berg (same as No. 3885).
3948	---do-----	Ice Patrol vessel-----------	42 21	50 06	Berg (same as No. 3936).
3949	---do-----	Oslofjord------------------	46 22	53 24	Berg (same as No. 3941).
3950	---do-----	-----do-------------------	46 30	53 14	Berg (same as No. 3944).
3951	---do-----	-----do-------------------	47 03	52 02	Berg and growlers (same as No. 3922).
3952	July 12	USNS Mission San Fernando	46 29	53 52	Berg (same as No. 3933).
3953	---do-----	Fresno City---------------	46 30	53 50	Berg (same as No. 3952).
3954	---do-----	-----do-------------------	47 12	51 27	Berg (same as No. 3821).
3955	---do-----	Athelcrown----------------	46 31	53 47	Berg and 5 growlers (same as No. 3953).
3956	---do-----	USNS Mission San Fernando	46 47	52 55	Berg (same as No. 3946).
3957	---do-----	-----do-------------------	46 51	52 54	Berg (same as No. 3947).
3958	---do-----	-----do-------------------	46 54	52 52	Berg (same as No. 3804).
3959	---do-----	-----do-------------------	47 13	52 47	Berg (same as No. 3885).
3960	---do-----	-----do-------------------	Along shore between Cape Ballard and Cape Broyle.		5 bergs (same as No. 3885).
3961	---do-----	Beaverford----------------	47 13	50 56	Berg (same as No. 3832).
3962	---do-----	Ellinis--------------------	47 22	51 10	Berg (same as No. 3844).
3963	---do-----	Falkanger-----------------	47 38	50 05	Berg (same as No. 3859).
3964	---do-----	-----do-------------------	48 17	48 32	Berg.
3965	---do-----	Afghanistan---------------	47 52	51 33	Do.
3966	---do-----	-----do-------------------	48 48	51 33	Do.
3967	---do-----	Stanbell------------------	47 56	50 35	Do.
3968	---do-----	Flying Tiger plane---------	49 57	54 01	2 bergs.
3969	July 13	Ice Patrol vessel-----------	42 32	50 17	Berg (same as No. 3948).
3970	---do-----	Beaverburn----------------	46 27	53 23	Berg (same as No. 3945).
3971	---do-----	-----do-------------------	46 32	53 45	Berg (same as No. 3952).
3972	---do-----	-----do-------------------	46 33	53 14	Berg (same as No. 3922).
3973	---do-----	-----do-------------------	46 34	53 18	Do.
3974	---do-----	Beaverglen----------------	46 28	53 21	Berg (same as No. 3970).
3975	---do-----	-----do-------------------	46 32	53 48	Berg (same as No. 3971).
3976	---do-----	USNS J. E. Kelley----------	46 28	53 23	Berg (same as No. 3974).
3977	---do-----	-----do-------------------	46 37	53 03	Berg (same as No. 3922).
3978	---do-----	Oslofjord------------------	47 05	51 48	Berg (same as No. 3826).
3979	---do-----	-----do-------------------	47 19	51 38	2 bergs (same as Nos. 3835 and 3841).
3980	---do-----	-----do-------------------	47 31	51 16	Berg (same as No. 3848).
3981	---do-----	Arosa Kulm----------------	47 43	48 10	Berg.
3982	---do-----	-----do-------------------	47 44	48 00	Do.
3983	---do-----	Leonhardt-----------------	48 03	51 10	Berg.
3984	---do-----	-----do-------------------	48 09	51 11	Do.
3985	---do-----	-----do-------------------	48 10	51 23	Do.
3986	---do-----	-----do-------------------	48 14	50 41	Do.
3987	---do-----	-----do-------------------	48 21	50 52	Do.
3988	---do-----	-----do-------------------	48 24	50 23	Do.
3989	---do-----	-----do-------------------	48 31	50 32	Do.
3990	---do-----	USAF plane----------------	50 17	53 48	Do.
3991	---do-----	West Fallen---------------	53 40	52 00	Broken patches heavy field ice.
3992	July 14	Ice Patrol vessel-----------	42 41	50 41	Berg (same as No. 3969).
3993	---do-----	Carinthia-----------------	46 31	52 23	Berg (same as No. 3970).
3994	---do-----	-----do-------------------	46 32	53 47	Berg (same as No. 3971).
3995	---do-----	-----do-------------------	46 39	52 21	Berg (same as No. 3922).
3996	---do-----	-----do-------------------	47 03	51 59	Berg (same as No. 3822).
3997	---do-----	Manchester Vanguard------	46 32	53 33	Berg (same as No. 3604).
3998	---do-----	-----do-------------------	46 32	53 49	Berg (same as No. 3994).
3999	---do-----	-----do-------------------	46 37	53 08	Berg (same as No. 3977).
4000	---do-----	Unidentified vessel---------	46 32	53 47	Berg (same as No. 3994).
4001	---do-----	Arosa Sun-----------------	47 31	48 30	Berg.
4002	---do-----	-----do-------------------	47 40	47 49	Do.
4003	---do-----	-----do-------------------	47 42	47 37	Do.
4004	---do-----	Unidentified vessel---------	47 48	49 48	3 bergs same as No. 3867).
4005	---do-----	African Lady--------------	47 55	50 50	Berg.
4006	---do-----	Johanna------------------	48 17	49 52	Do.
4007	July 15	Ice Patrol vessel-----------	42 58	50 46	Berg (same as No. 3992).
4008	---do-----	-----do-------------------	43 10	50 48	Growlers (same as No. 4007).
4009	---do-----	Nova Scotia---------------	46 32	53 22	Berg (same as No. 3993).
4010	---do-----	-----do-------------------	46 36	53 10	Berg (same as No. 3999).
4011	---do-----	-----do-------------------	46 49	52 54	Berg (same as No. 3956).
4012	---do-----	Ohio----------------------	48 10	50 22	3 growlers.
4013	---do-----	Frank Leonhardt-----------	48 23	52 18	Berg.
4014	---do-----	Ice Patrol vessel-----------	43 13	50 33	Growler (same as No. 4008).
4015	---do-----	Empress of England--------	46 33	53 44	Radar target, probable berg (same as No. 3975).
4016	---do-----	USNS Vela----------------	47 07	52 50	Berg (same as No. 3555).
4017	---do-----	-----do-------------------	47 10	52 48	Berg (same as No. 3959).
4018	---do-----	-----do-------------------	47 16	52 46	Berg (same as No. 3555).
4019	---do-----	Stavangerfjord-------------	48 04	50 22	Berg.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
4020	July 16	Mormacrio	48	41	49	51	2 bergs, scattered field ice.
4021	July 17	Ice Patrol vessel	43	26	50	29	Growler (same as No. 4014).
4022	do	Bretogne	43	30	49	10	Radar target, possible berg.
4023	do	Corinaldo	44	14	49	42	2 radar targets, possible bergs.
4024	do	Foldenfjord	46	58	51	51	Radar target, probable berg (same as No. 3822).
4025	do	do	47	03	51	59	Berg (same as No. 3766).
4026	do	Nyland	49	22	53	16	Berg.
4027	do	do	49	24	53	13	Do.
4028	do	do	49	30	53	30	Do.
4029	do	Unidentified vessel	50	00	55	31	Do.
4030	do	do	50	04	55	35	Do.
4031	do	do	50	05	55	32	Do.
4032	do	do	50	06	55	35	Do.
4033	July 18	Luksefjell	47	40	51	09	Berg (same as No. 3857).
4034	do	do	48	01	49	33	2 bergs.
4035	do	Newfoundland	48	40	49	56	Berg.
4036	do	do	48	41	50	03	Do.
4037	July 19	Ice Patrol plane	48	46	53	42	Berg (same as No. 3998).
4038	do	do	47	09	52	04	Berg (same as No. 3825).
4039	do	do	47	59	51	42	Berg.
4040	do	Tureby	47	03	52	09	Berg and growlers (same as No. 4038).
4041	do	Ravnefjell	47	10	52	02	Berg (same as No. 4040).
4042	do	do	48	17	49	51	Berg.
4043	do	Newfoundland	47	47	51	45	Radar target, probable berg (same as No. 4039).
4044	do	Osterbotten	48	08	50	45	Berg.
4045	do	do	48	12	50	20	Do.
4046	do	do	48	20	50	11	Do.
4047	do	Praunheim	48	31	51	59	Do.
4048	do	Ernest LaPointe	51	05	57	22	Do.
4049	do	do	51	06	57	38	Do.
4050	do	do	51	07	57	39	Do.
4051	do	do	51	08	57	30	Do.
4052	do	do	51	09	57	31	Do.
4053	do	do	51	10	57	21	Do.
4054	July 20	USS Kirkpatrick	45	41	48	25	Berg and growlers.
4055	do	Unidentified vessel	47	08	50	00	Berg.
4056	do	Dione	48	08	50	00	Do.
4057	do	Fresno City	48	15	50	00	Berg and growler.
4058	July 21	USS Kirkpatrick	45	27	48	38	Berg (same as No. 4054).
4059	do	Saxonia	47	10	49	52	Berg (same as No. 4055).
4060	do	Sylvania	48	06	49	56	Berg.
4061	do	do	48	20	48	39	Radar target, probable berg.
4062	do	USCGC Evergreen	48	08	51	28	Berg.
4063	do	USCGC Owasco	49	33	52	08	Do.
4064	do	Scandinavian Airlines plane	Vicinity of 49	37	51	45	6 bergs.
4065	do	USNS Towle	53	28	52	57	Scattered bergs.
4066	July 22	Ice Patrol plane	45	23	48	45	Berg (same as No. 4058).
4067	do	USS Kirkpatrick	45	21	48	45	Berg (same as No. 4066).
4068	do	HMRCS Lauzon	45	21	48	46	Berg (same as No. 4067).
4069	do	USNS Towle	48	30	52	32	Scattered bergs.
4070	do	Marialusa	48	31	49	18	Berg.
4071	do	Mimosa	48	51	52	55	Do.
4072	do	do	49	12	53	12	Do.
4073	do	do	49	21	53	10	Do.
4074	do	Daleby	48	55	52	53	Do.
4075	do	do	49	11	53	13	Do.
4076	do	do	46	48	52	53	Growler.
4077	do	do	46	56	52	53	Do.
4078	do	Ivernia	52	20	51	43	Radar target, probable berg.
4079	do	do	52	32	51	41	Do.
4080	do	Wesleyan Victory	47	36	52	15	5 growlers.
4081	July 23	Beaverlake	47	21	49	32	Berg (same as No. 3963).
4082	do	USS Plymouth Rock	48	20	52	20	Scattered bergs and growlers.
4083	do	USCGC Evergreen	48	47	52	55	Berg.
4084	do	do	49	06	51	47	Do.
4085	do	USCGC Mackinac	49	47	51	51	2 bergs.
4086	do	do	50	17	51	56	Berg.
4087	do	East Point Victory	Strait of Belle Isle				Numerous bergs and growlers; no field ice.
4088	July 24	Ice Patrol plane	47	18	49	25	Berg (same as No. 4081).
4089	do	do	48	08	48	37	Berg.
4090	do	do	48	10	50	11	Radar target, probable berg.
4091	do	do	48	16	48	24	Berg.
4092	do	do	48	22	47	57	Berg.
4093	do	do	48	25	48	00	Radar target, probable berg.
4094	do	do	48	42	48	30	Do.
4095	do	do	48	42	49	30	Berg.

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No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
4096	---do----	Arjeplog	44 55	49 00	Berg (same as No. 4068).
4097	---do----	USCGC Evergreen	48 41	49 28	Several growlers.
4098	---do----	-----do	48 42	49 43	Do.
4099	July 25	Arjeplog	44 54	49 00	Berg (same as No. 4096).
4100	---do----	USS Prevail	48 46	52 46	Berg.
4101	---do----	Cyrus Field	48 58	51 09	Do.
4102	---do----	Gileannes	49 32	51 58	Do.
4103	July 26	Ice Patrol plane	44 18	49 05	Berg (same as No. 4099).
4104	---do----	Ice Patrol vessel	44 11	48 56	Berg (same as No. 4103).
4105	---do----	New York	48 05	48 23	Berg.
4106	---do----	-----do	48 10	48 02	Do.
4107	July 27	Ice Patrol plane	47 31	48 45	Do.
4108	---do----	-----do	47 50	50 07	Do.
4109	---do----	-----do	47 56	47 52	Do.
4110	---do----	-----do	48 00	47 34	Do.
4111	---do----	Ice Patrol vessel	43 49	48 57	Berg (same as No. 4104).
4112	---do----	Stadgouda	47 41	52 51	Berg.
4113	---do----	-----do	48 01	52 28	Do.
4114	---do----	Unidentified vessel	48 46	52 24	Numerous bergs, growlers and brash.
4115	July 28	Ice Patrol vessel	43 22	48 58	Berg and growlers (same as No. 4111).
4116	---do----	Queen Elizabeth	43 35	49 04	Berg (same as No. 4111).
4117	---do----	Ivernia	Western entrance to Strait of Belle Isle.		Numerous radar targets, probable bergs.
4118	July 29	Ice Patrol plane	47 52	52 29	Berg.
4119	---do----	-----do	48 03	47 07	Do.
4120	---do----	-----do	48 31	52 47	Do.
4121	---do----	-----do	48 32	52 50	Do.
4122	---do----	Ice Patrol vessel	43 12	49 17	Berg (same as No. 4115).
4123	---do----	Liberte	Vicinity of 43 17	49 06	Do.
4124	---do----	Carinthia	47 58	49 50	Growler.
4125	July 30	Ice Patrol plane	48 34	52 35	Berg.
4126	---do----	-----do	48 37	52 32	Do.
4127	---do----	-----do	48 46	52 40	Do.
4128	---do----	-----do	49 00	52 05	Do.
4129	---do----	-----do	49 09	51 01	Do.
4130	---do----	-----do	49 53	51 20	Do.
4131	---do----	-----do	48 58	52 58	Growler.
4132	---do----	Ice Patrol vessel	42 57	49 21	Berg (same as No. 4122).
4133	---do----	L'Aventure	51 46	55 43	5 radar targets, probable bergs.
4134	---do----	-----do	51 41	56 14	4 radar targets, probable bergs.
4135	---do----	USNS Logans	55 45	55 00	Field ice.
4136	July 31	Ice Patrol vessel	42 54	49 22	Berg (same as No. 4132).
4137	---do----	USNS Dalton Victory	Strait of Belle Isle		Many bergs and growlers.
4138	Aug. 1	Ice Patrol vessel	42 54	49 54	Berg (same as No. 4136).
4139	---do----	USCGC Evergreen	48 35	52 17	Berg and growlers.
4140	---do----	Prins Alexander	Between 50 54 and 51 48	57 47 and 55 56	21 bergs.
4141	---do----	Vilhelm Torkildsen	Vicinity of Belle Isle		Several bergs.
4142	Aug. 2	Ice Patrol vessel	42 56	50 11	Berg (same as No. 4138).
4143	---do----	Frank Leonhardt	47 49	52 45	Berg.
4144	Aug. 3	Ice Patrol vessel	42 58	50 16	Berg (same as No. 4142).
4145	---do----	USCGC Eastwind	From Riche Point to Flower Ledge, Newfoundland.		6 bergs.
4146	---do----	-----do	Between Pinware Bay and St. Peters Bay, Labrador.		20 bergs.
4147	---do----	Rutgers Victory	Vicinity of 53 45	52 20	Scattered pieces of ice.
4148	Aug. 4	Ice Patrol vessel	43 04	50 13	Berg (same as No. 4144).
4149	Aug. 5	-----do	43 04	50 11	Berg (same as No. 4148).
4150	---do----	Arosa Sun	51 40	52 40	Berg.
4151	Aug. 6	Ice Patrol vessel	43 07	50 10	Berg (same as No. 4149).
4152	---do----	Empress of England	52 50	52 19	Berg.
4153	Aug. 7	Ice Patrol vessel	43 07	50 10	Berg (same as No. 4151).
4154	Aug. 8	-----do	43 12	50 08	Berg (same as No. 4153).
4155	Aug. 9	-----do	43 14	50 02	Berg (same as No. 4154).
4156	Aug. 10	-----do	43 15	50 00	Berg (same as No. 4155).
4157	---do----	-----do	43 19	50 02	2 growlers (same as No. 4156).
4158	---do----	Beaverdell	Along eastern approaches to Strait of Belle Isle between 50° W. and 54° W.		19 bergs.
4159	---do----	Unidentified vessel	52 56	51 06	2 growlers.
4160	Aug. 15	CG Aircraft	49 41	52 25	Large berg.
4161	---do----	-----do			Do.
4162	Aug. 16	Ringfjell	53 00	51 19	Berg.
4163	Aug. 18	Unidentified vessel	52 39	51 11	Do.
4164	---do----	-----do	52 51	51 13	Do.
4165	Aug. 19	-----do	51 05	55 10	Large berg.

No.	Date	Name of vessel	North latitude °	′	West longitude °	′	Description
4166	---do-----	Prins Willem	52	50	50	54	Large berg.
4167	Aug. 20	Unidentified vessel	49	30	52	00	Berg.
4168	---do-----	CG Aircraft	49	34	53	36	Berg.
4169	---do-----	-----do	50	08	52	40	Do.
4170	---do-----	-----do	53	01	51	34	Do.
4171	---do-----	-----do	53	04	51	51	Do.
4172	---do-----	-----do	53	08	51	51	Do.
4173	---do-----	-----do	53	09	51	36	Do.
4174	---do-----	-----do	53	09	51	30	Do.
4175	---do-----	-----do	54	31	51	30	Do.
4176	---do-----	Auis Bay	53	00	51	52	2 growlers.
4177	---do-----	-----do	53	01	51	59	Berg.
4178	Aug. 22	Unidentified vessel	49	21	52	00	Do.
4179	Aug. 23	Aun	52	25	54	00	Do.
4180	---do-----	Luciana	53	20	52	15	Five small bergs.
4181	Aug. 24	CG Aircraft	49	17	51	25	Berg.
4182	---do-----	Aun	53	18	49	50	Berg and growlers.
4183	Aug. 25	US Naval vessel	52	50	54	42	Berg.
4184	Aug. 26	TWA Aircraft	49	40	50	30	Large berg.
4185	---do-----	Francisca Sartori	52	20	53	54	Berg.
4186	Aug. 28	USAF Aircraft	53	30	53	02	Do.
4187	Aug. 29	Liana	48	48	50	25	Large berg.
4188	Aug. 30	CG Aircraft	48	51	49	46	Berg and growler.
4189	Sep. 1	USCGC Half Moon	52	56	51	28	Berg and growlers.
4190	---do-----	-----do	53	06	51	39	Berg.
4191	Sep. 2	USCGC Rockaway	54	40	51	24	Do.
4192	Sep. 3	Batory	51	46	55	12	Do.
4193	---do-----	Ryndam	52	28	51	41	Do.
4194	---do-----	-----do	52	31	51	09	Do.
4195	---do-----	-----do	52	34	50	57	Growler.
4196	---do-----	City of Swansea	53	20	51	45	Berg.
4197	---do-----	Raunala	53	26	52	10	Do.
4198	---do-----	-----do	53	30	52	01	Do.
4199	---do-----	-----do	53	32	52	04	Do.
4200	Sep. 5	Arosa Kulm	52	52	53	00	Do.
4201	Sep. 6	-----do	52	15	50	48	Do.
4202	---do-----	Athens	52	39	53	27	Large berg.
4203	Sep. 7	Waldemar Peter	52	11	54	42	Large berg.
4204	Sep. 10	Prins Willem van Oranje	52	38	50	35	2 growlers.
4205	---do-----	-----do	52	45	50	26	Radar target, probable berg.
4206	Sep. 12	Ribble head	52	56	52	24	Berg.
4207	---do-----	-----do	52	56	52	27	Do.
4208	Sep. 14	Unidentified	52	30	52	42	Do.
4209	Sep. 16	-----do	52	51	54	20	Do.
4210	---do-----	-----do	53	09	54	19	Growler.
4211	Sep. 22	Unidentified	52	49	53	27	Berg and growlers.
4212	Sep. 23	USNS T-LST 325	51	46	56	14	Berg.
4213	Sep. 27	Loch Morar	51	36	56	18	Berg.
4214	Sep. 30	Unidentified	51	47	55	59	Growler.

PHYSICAL OCEANOGRAPHY OF THE GRAND BANKS REGION AND THE LABRADOR SEA IN 1957[1]

By Floyd M. Soule and R. M. Morse

(U. S. Coast Guard)

For the 1957 field work the USCGC *Evergreen* was again designated as the oceanographic vessel of the International Ice Patrol. The *Evergreen* is a 180-foot tender-class cutter and descriptions of the arrangement of facilities for oceanographic work will be found in earlier bulletins of this series. No significant changes were made, either in the laboratory or deck gear or in such vessel characteristics as affect the oceanographic work.

At the beginning of the season, while en route from Woods Hole, Mass., to Argentia, Newfoundland, the *Evergreen* was diverted from her oceanographic assignment to surface vessel ice patrol duties until 3 April on which date she proceeded to begin the first current survey of the 1957 season. This survey covered the waters over and immediately seaward of the southern and eastern slopes of the Grand Banks from about longitude 52° W. on the southern slope to the latitude of Flemish Cap on the eastern slope. The work of collection of data began on the southwestern slope of the banks on the early morning of 4 April and progressed eastward around the Tail of the Banks and thence northward along the eastern slope. Except for being hove to for 23½ hours in heavy weather between the second and third stations of the survey and again for 2¼ hours on 14 April the work of collection of data progressed without major interruption and was completed on the morning of 18 April. The *Evergreen* then proceeded to Argentia, arriving there at mid-day on 19 April.

A second survey was made with the *Evergreen* leaving St. John's, Newfoundland, on 29 April. The area covered by this survey was similar to that covered by the first survey and with work progressing in the same direction. The work of collection of data began on the early morning of 1 May and again the only interruption to the work of collection of data occurred near the beginning of the survey, this time for 4½ hours on the morning of 2 May. The final station of the survey was completed on the early morning of 12 May and the *Evergreen* proceeded to Argentia, arriving there the following morning.

[1]To be reprinted as Contribution No. 959 in the Collected Reprints of the Woods Hole Oceanographic Institution.

Diversion of the *Evergreen* for surface vessel ice patrols prevented any further oceanographic work during the 1957 season. A postseason cruise, comprising 53 stations, made during late July, however, consisted of occupations of the Bonavista triangle 22–25 July and the section across the Labrador Sea from South Wolf Island, Labrador, to Cape Farewell, Greenland, 26–29 July. Thus in 1957, a total 237 stations were occupied, 96 during the first survey, 88 during the second survey, 30 in the occupation of the Bonavista triangle and 23 on the Labrador Sea section. The oceanographic work was under the supervision of Oceanographer Floyd M. Soule who was assisted by Lt. R. M. Morse. During the two surveys made during the season Lt. John E. Murray also assisted. Other assistants in the observational work were Francis N. Brown, yeoman first class; Elwood C. Gray, aerographer's mate first class; Lewis M. Lawday, aerographer's mate second class; Hugh R. McCartney, Jr., aerographer's mate second class; and Herbert A. Ashmore, aerographer's mate third class.

Temperature and salinity measurements were made at each of the 237 stations. At the 23 stations along the Labrador Sea section the observations extended from the surface to as near bottom as was practicable. At the other 214 stations the observations extended from the surface to about 1,500 meters where the depth of water permitted. The intended depth of observations, in meters, were 0, 25, 50, 75, 100, 150, 200, 300, 400, 600, 800, 1,000 and thence by 500-meter intervals.

A sample of old water taken from a part of an ice berg located well away from the original surface of the berg and away from old crevasse lines, was collected for subsequent determination of tritium concentration.

Temperatures were measured with deep sea reversing thermometers. Most of the thermometers used were of Richter & Wiese manufacture but a small percentage were made by Negretti & Zambra, G. M. Manufacturing Co., and Kahl Scientific Inst. Corp. The depths of observation were based on unprotected reversing thermometers made by Richter & Wiese and by Kahl. As a control on the performance of the individual thermometers and a guide in determining when and which thermometers were in need of thermal manipulation for the removal of gas particles to their small bulbs, a program of intercomparison of protected thermometers was carried out as in previous years. The individual thermometers used in pairs were periodically shifted so that each thermometer eventually was paired with several other thermometers. From a total of 1957 comparisons, the probable difference between the corrected reading of a pair of protected thermometers was 0.011° C. Since many of the thermometers used had recent laboratory comparisons with thermometers tested by the National Bureau of Standards, and as in most cases the temperatures are the mean of the corrected readings of a pair of thermometers, it is considered that the observed temperatures listed in the table of oceanographic data have a probable error of about ±0.01° C.

Routine salinity measurements, as in previous years, were made with a Wenner salinity bridge. Prior to the beginning of the 1957 season the bridge was cleaned and the calibration curve redetermined. For this purpose several composite samples of actual sea water collected during the 1956 field work and well distributed over the range of salinities encountered in the Grand Banks region and the Labrador Sea were measured on the Wenner bridge and by silver nitrate titration. Assuming that, over the range of salinity involved, the relationship between conductivity and salinity has the form

$$C = C' (K + LS)$$

where C is the conductivity corresponding to any salinity S and C' is the conductivity corresponding to salinity S', and K and L are constants, the calibration curve of the bridge has the form

$$S = \frac{a}{b + m} - c$$

where S is the salinity, m is the reading of the X-dials of the bridge at balance and a, b, and c are constants.

The constant b was measured electrically and mean values of a and c were determined from the measurements of the several samples by bridge and titration. The resulting calibration curve was found to be

$$S = \frac{9817.725}{200.2 + m} - 4.2534$$

This method permits the arbitrary selection of a single point on the calibration curve. This point was so selected as to bring the salinity of Copenhagen normal sea water and the salinity of the deep water near the middle of the range of the bridge, a salinity of 35 °/₀₀ corresponding to a dial reading of 49.911.

As the calibration curve, determined in this manner, is defined by the silver nitrate titration of the several samples used, the accuracy of the measurement of salinities by the bridge is no better than the accuracy of the silver nitrate titrations used in the calibration. The precision with which the salinities may be measured with the bridge is better, however, and is considered to be about 0.005 °/₀₀.

Water from an oil-sealed carboy of sea water was used as a working standard for the routine measurements. At least twice during each run samples of Copenhagen normal sea water were measured as unknowns. These measurements indicated corrections of less than .005 °/₀₀ except for stations 6504 through 6519 for which a correction of +.01 °/₀₀ was indicated and applied. Copenhagen water of the batch P_{22} was used as the reference standard and a series of measurements were also made to compare the conductivity-salinity relationship of the batch P_{22} with that of batch P_{23} to permit a subsequent shift to the latter as a future reference standard.

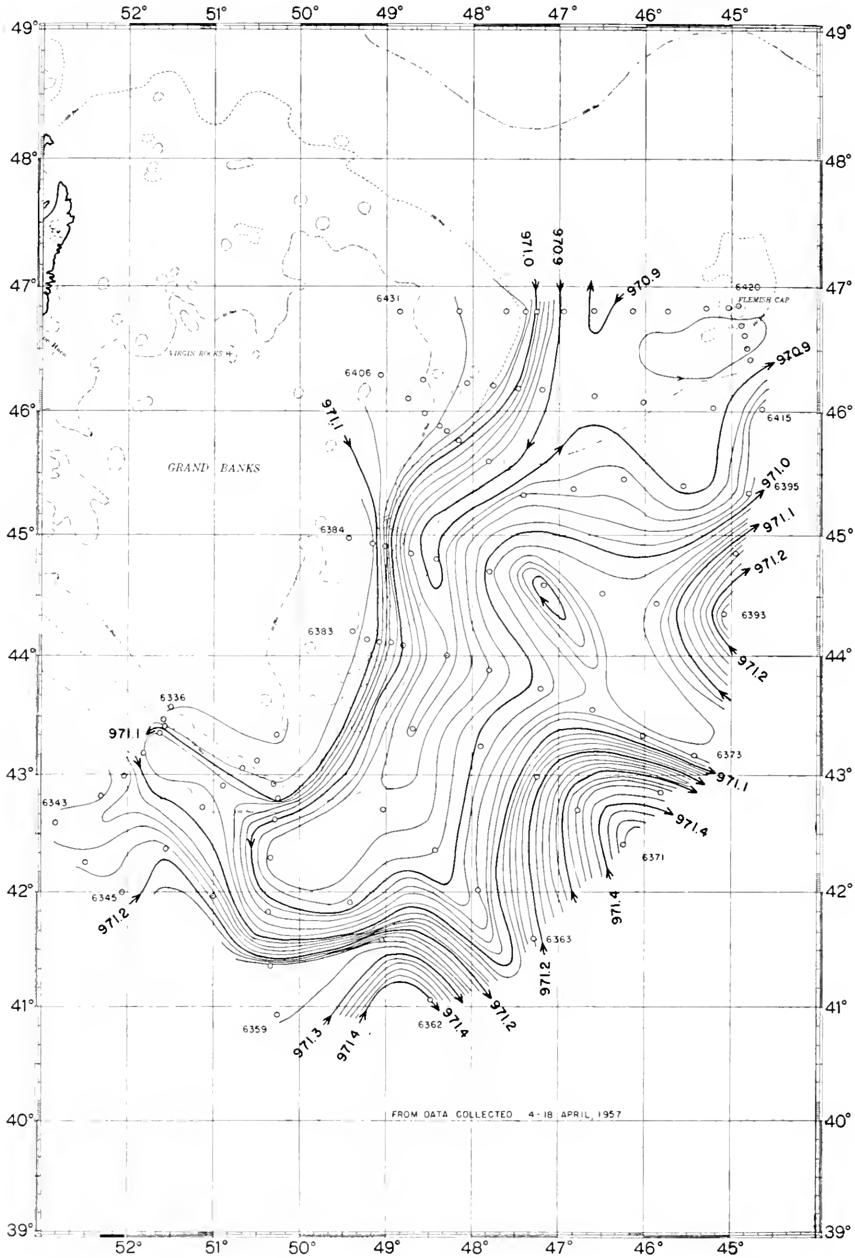

FIGURE 19.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 4–18 April 1957. Oceanographic station positions are indicated and the station numbers given at turning points.

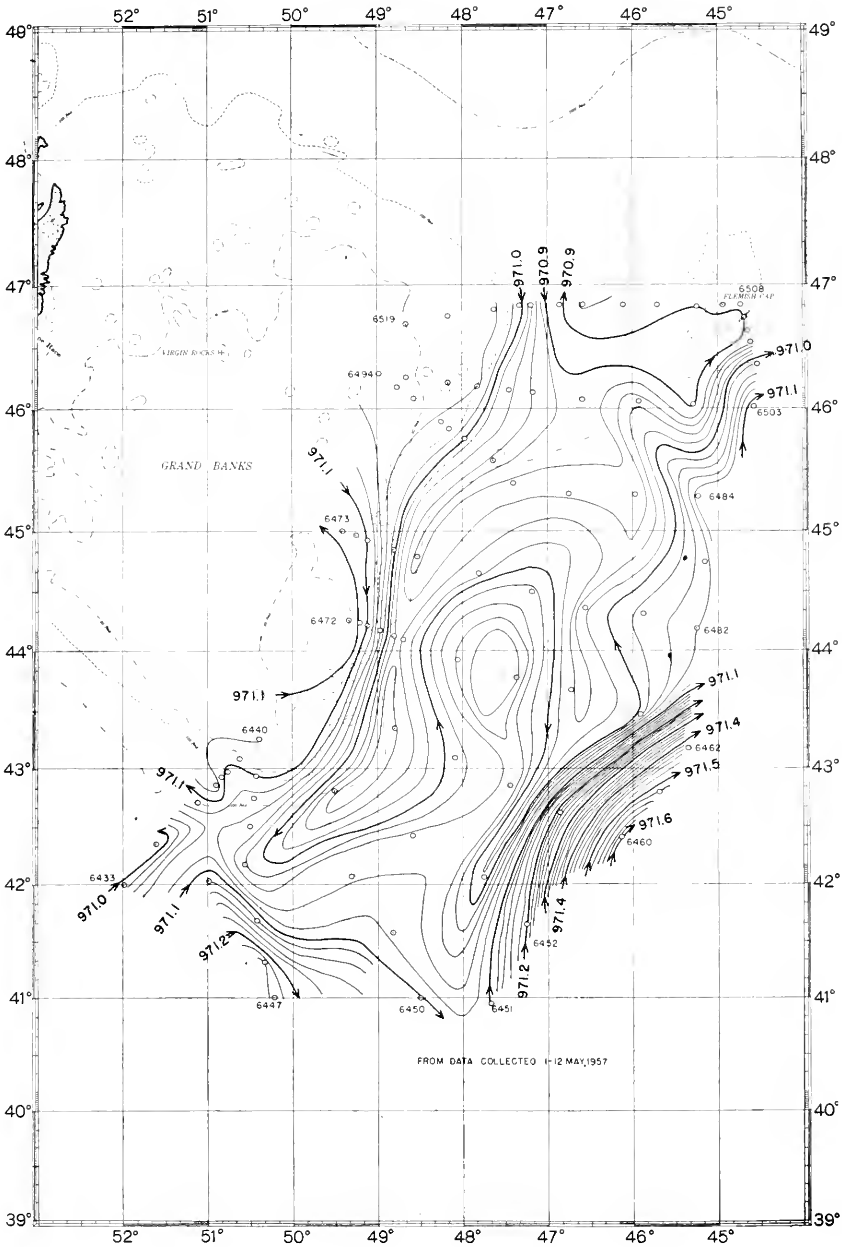

FIGURE 20.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 1–12 May 1957. Oceanographic station positions are indicated and the station numbers given at turning points.

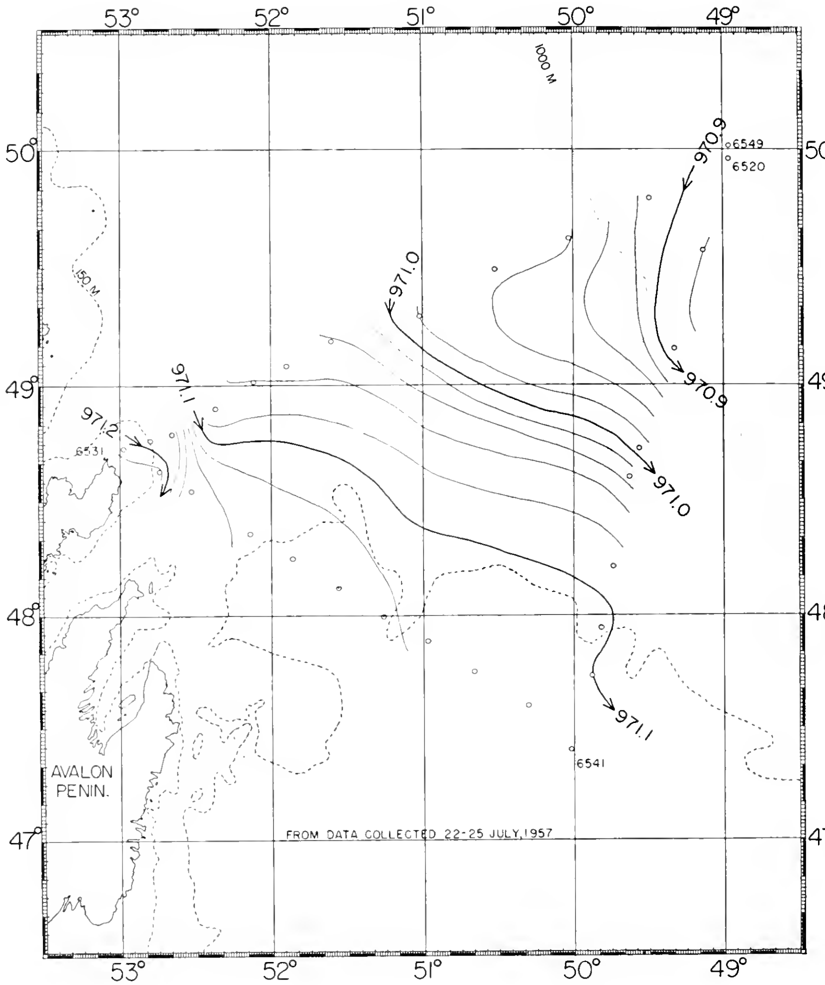

FIGURE 21.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 22-25 July 1957. Oceanographic station positions are indicated and the station numbers given at turning points.

Figures 19, 20, and 21 shown in chronological sequence the dynamic topography found during the two surveys of the Grand Banks region and the postseason occupation of the Bonavista triangle. In the April survey, figure 19, the Labrador Current entering the northern edge of the surveyed area was about normal as to speed and location. Additions of water from the Grand Banks between 45° N. and 46° N. served to increase the effective width of the current from 45° N. to the Tail of the Banks. At the Tail of the Banks the Grand Banks water followed the bottom contours to the westward but the major portion of the Labrador Current continued southward beyond the 42d parallel and thence curved eastward to about 48°30′ W. paralleling the outer edge of the Atlantic Current. At about 48°30′ W. these swifter moving waters curved to the southeastward beyond the limits of the survey between 47° and 48° W. where a pool of colder water filled the concave portion of a meander of the Atlantic Current to the right. Beyond the meander the margin of the Atlantic Current pushed northward between about 46° W. and 47° W. The clockwise eddy centered near 44°30′ N. 47°00′ W. contained warm water derived from this Atlantic Current salient.

It will be noted that while the dynamic heights in the low valley between the Labrador Current and the Atlantic Current were about normal and those on the Grand Banks were slightly above normal those in the highest part of the Atlantic Current covered by the survey were some 10 or 15 dynamic centimeters below normal. The Atlantic Current margins in the area surveyed had a relatively thin layer of Atlantic Current water under which there was a layer of anomalous mixed water inclined downward to the southeast. While this anomalous mixed water had a characteristic temperature salinity relationship it appeared to be a mixture of the usual mixed water and Atlantic Current water. Its upper surface sloped from about 300 meters at station 6369 to about 1,000 meters at station 6371. The under surface of this anomalous mixed water was similarly inclined downward in a seaward direction over the usual mixed water. In the vicinity of Flemish Cap the water was Labrador Current water from its T–S characteristics, whereas usually at least the southeastern part of Flemish Cap is occupied by mixed water. Here, between stations 6417 to 6415, there again is indication of a downward seaward inclination, this time with the usual mixed water between Labrador Current water and Atlantic Current water. These are considered indications that prior to this survey an unusually large amount of Labrador Current water was brought into the area and that vigorous wind stirring took place. Further confirmation is offered by the observations which showed the characteristic temperature minimum of the Labrador Current near 75 meters to have been almost completely wiped out and the minimum temperatures about a half degree warmer than normal.

The observations made during the second survey indicated a continuation of this mixing at subsurface levels but with some recovery of the Labrador Current temperature minimum and the area in which undiluted Labrador Current water was found more nearly normal. The reestablished temperature minimum in the Labrador Current was shallower than normal and, except in the northernmost sections, warmer than normal. Figure 20 shows the highest dynamic heights of the Atlantic Current in the surveyed area to have returned to about normal values.

A cold water pool with counterclockwise circulation and partly detached from the Labrador Current lay westward of 51° W. south of the Tail of the Banks. The clockwise eddy found in the first survey near 44°30′N. 47°00′ W. was still present in the second survey somewhat southwestward of its previous position and connected by a warm salty ridge to the Atlantic Current water in the southern part of the surveyed area. This was accompanied by a cold fresh valley extending southward from the 45th parallel to the southern limits of the chart between the ridge and the Atlantic Current to the eastward. This is the reverse of the usual relative positions of a pair of meanders which develop a counterclockwise intertwining as the pattern decays and moves with a translation parallel to the Atlantic Current.

Figure 21 shows the dynamic topography found at the Bonavista triangle during the postseason cruise. In any comparison of the situation shown here with the topography farther south shown in figures 19 and 20 it should be kept in mind that figure 20 was the result of a survey conducted 1 to 12 May whereas the Bonavista triangle was occupied 22 to 25 July. Our only information as to changes which might have taken place in the current pattern in the Grand Banks area is from berg drifts and these indicate that the current pattern in the western half of the area surveyed in May remained remarkably steady and as shown in figure 20 through June and July.

There are two features of the dynamic topography shown in figure 21 that are especially worthy of note. One is the exceptionally high dynamic heights found near the Cape Bonavista corner and the other is the comparatively small distance from Cape Bonavista to the eastern edge of the water following the western branch of the Labrador Current. The low densities of the inshore stations which produced the large dynamic heights were largely the result of low salinity. In terms of berg movements, the division between eastern and western branches of the Labrador Current meant that any bergs crossing the 49th parallel eastward of about 52°30′ W. would follow the eastern branch. Because of the absence of opportunity to make any dynamic topographic surveys of the northeastern slope of the Grand Banks during the 1957 season the significance of this unusually far westward division point cannot be assessed.

As implied above in the discussion of figures 19 and 20 the temperature-salinity relationships found at each station of the two surveys made in 1957 were examined.

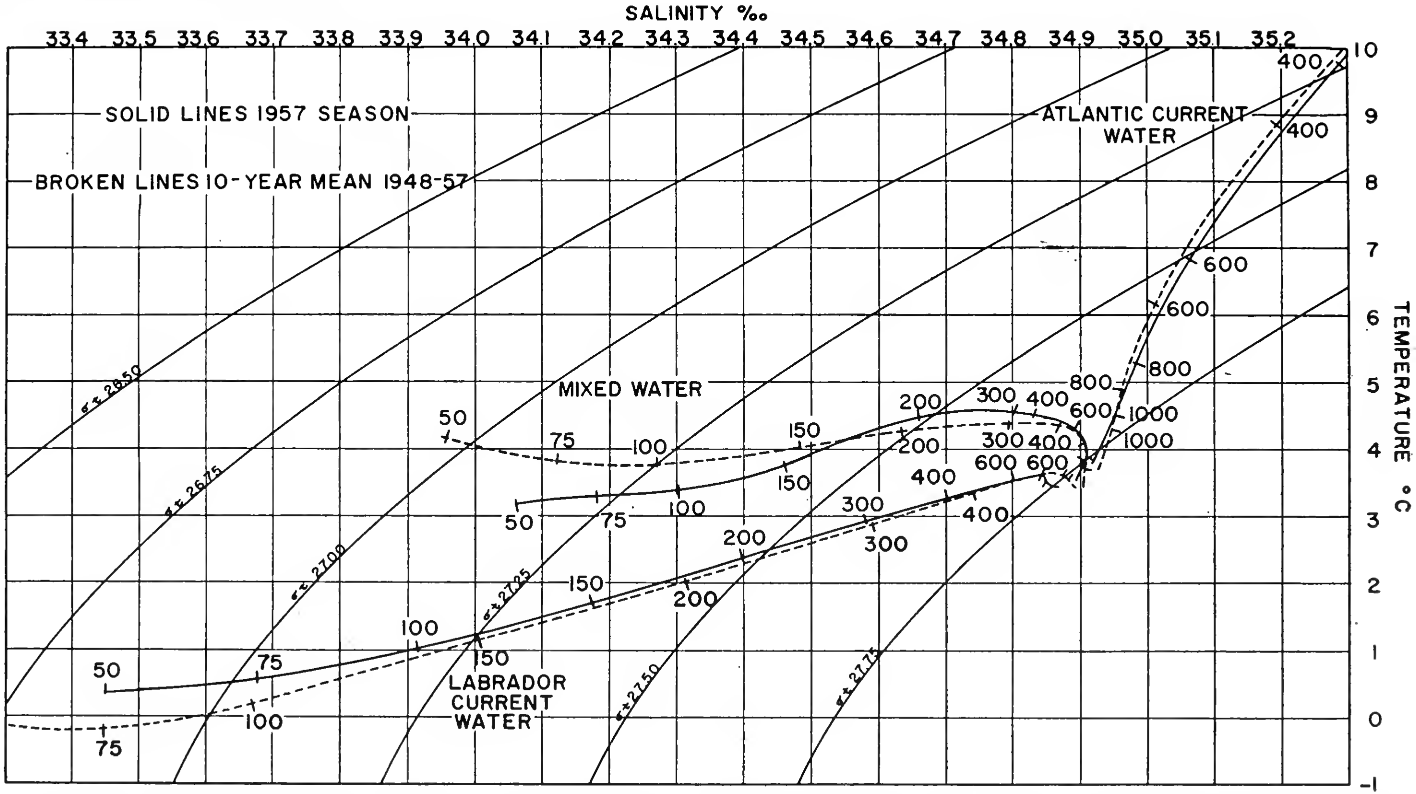

FIGURE 22.—Temperature-salinity relationships for Labrador Current water, Atlantic Current water and mixed water found in the Grand Banks region. Solid lines show conditions found during 1957 and broken lines represent the 10-year means for the period 1948–57. An approximate depth scale in meters is given.

From their T–S characteristic relationships the Labrador Current water and the Atlantic Current water found in the Grand Banks region are water masses. Usually also in this region these water masses mix in a sufficiently constant proportion so that the mixed water can be regarded as a virtual water mass. The mean T–S relationships for these three water masses for the 10-year period 1948–57 are shown in figure 22 in comparison with the conditions found in 1957. The 10-year means are shown as broken lines and the 1957 conditions are represented by solid lines.

The typical mixed water found in the Grand Banks region is not always present. In some years the proportion of the parent water masses producing the mixed water is variable and the resulting mixed water follows no definite pattern of characteristic T–S relationship. Also occasionally a group of stations will be found to have a consistent pattern differing from the typical mixed water. In 1957, as mentioned above in the discussion of figures 19 and 20, such a group of stations was found to have a T–S pattern which indicated a mixture of the usual mixed water with Atlantic Current water. These observations have been excluded in computing the average T–S values for the mixed water as shown in figure 22.

The presence of mixed water as a virtual water mass in the Grand Banks region raises questions as to what happens to this mixed water after it is formed. One possibility was that the mixed water formed in the Grand Banks region might supply the intermediate water of the Labrador Sea. The T–S characteristics of the water were examined at the bulk of the stations taken 1951 through 1956 and located in the northward-moving water north of Flemish Cap. No surveys extended into this area in 1948, 1949, 1950, and 1957, so that the 88 stations examined represent all of the postwar observations in the area in question. The resulting individual station curves showed some grouping in the mixed water but more scatter than in the mixed water of the Grand Banks region. The T–S curves fell principally between the Grand Banks curves for Labrador Current water and mixed water with a few stations on the Atlantic Current side of Grand Banks mixed water. The interpretation is that some of the mixed water formed in the Grand Banks region moves northward of Flemish Cap mixing in varying proportions with Labrador Current water in the more northern area and that some sinking and seaward spreading of the mixed water goes on in both areas.

To determine the spread of individual station curves from the 1957 characteristic T–S curves an ellipse was constructed for each level for each water mass using probable differences of individual temperatures and salinities from their average values as the semiaxes of the ellipses. The ellipses for a given level for the three water masses were separate from each other except that at 800 meters the mixed-water ellipse was tangent to that for Atlantic Current water, and at 1,500 meters the mixed-water ellipse slightly overlapped those for Labrador Current water and Atlantic Current water.

The curves in figure 22 representing the conditions found in 1957 indicate that the Labrador Current water was denser than average down to about 300 meters and lighter than average below this level. The salinity was the determining factor and counteracted a slight opposite effect of temperature anomalies. In the mixed water the 1957 observations showed denser than average water down to a depth of about 200 meters and lighter than average below that depth. Here both temperature and salinity anomalies combined to produce the density anomalies. In the Atlantic Current water densities down to about 200 meters were close to average and below that level were lighter than average, with the higher than average temperatures outweighing the effect of slightly greater than average salinities.

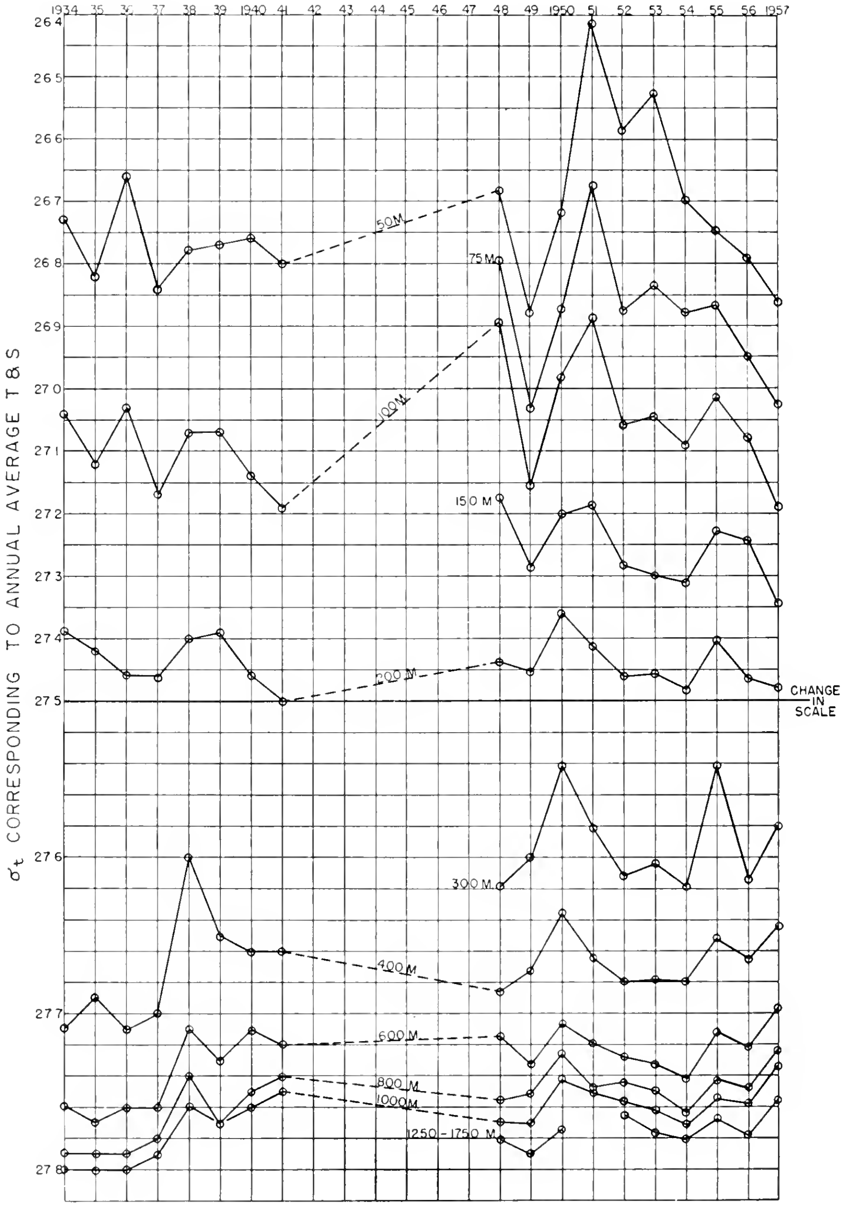

FIGURE 23.—Year-to-year fluctuations in density of the Labrador Current water found in the Grand Banks region at selected levels 1934–41 and 1948–57. The plotted points represent values of σ_t corresponding to the average temperature and average salinity for the particular year and level.

As the T–S characteristics found in the Grand Banks region fluctuate slightly from year to year figure 23 has been prepared to show the amount of this fluctuation as it affects the density at the different levels in the Labrador Current water. The densities shown are the values of σ_t corresponding to the average temperature and average salinity for the particular level and year. It is of interest to note the degree of fluctuation within the 10-year period 1948–57 used for the normal curve shown in figure 22. Similar yearly averages for some of the levels are available for the 8-year period 1934–41 and are also shown in figure 23 to show the changes which have occurred over the longer period. Thus it appears that in recent years the Labrador Current water has been increasing in density in the upper 200 meters and decreasing in density at levels below that. The net effect of these density changes on the average dynamic height of the 50-decibar surface relative to the 1,000-decibar surface shows no consistent trend.

The position of the steep horizontal temperature gradient at the sea surface which occurs near the outer margins of the Atlantic Current in the Grand Banks region is of great practical importance in determining the southern limits of berg drifts. This steep gradient is called the cold wall. Since it is not always vertical and since we are concerned with its location in a layer whose thickness is commensurate with the draft of an iceberg, in studies of its fluctuations its position has been taken as the horizontal projection of the line along which water of 34.95 °/₀₀ salinity corresponds to a temperature of 6° C. The position of the cold wall has been delineated thus for each survey which has included this area. To enable the numerical expression of its position, or its retreat from or advance toward the Grand Banks, the area between it and certain fixed rhumb lines has been used. These rhumb lines are the 45th parallel from the cold wall westward to the 49th meridian, the 49th meridian from 45° N. to 43° N. and a line from 43° N. 49° W. through 42° N. 47° W. extended to the cold wall.

It is presumed that the position of the cold wall is determined by the relative strengths of the Labrador Current and the Atlantic Current. For each survey for which the position of the cold wall can be delineated, the salinity, temperature and velocity distributions, as well as the volume and heat transports are available for the Labrador Current entering the area from the northward past the 45th parallel. Using what are believed to be realistic values of average velocity distribution, it has been further assumed that each million cubic meters per second of volume transport of the Labrador Current entering the area will require a sea surface area of 10,000 sq. kilometers. The area between the cold wall and the rhumb lines has therefore been reduced by such a proportionate amount to give a remaining adjusted area, A, whose size, it was expected, would be related to forces associated with the North Atlantic eddy and consequently with the Atlantic Current which makes up the outer margin of the eddy in the Grand Banks sector.

It was further assumed that the difference in sea level between Bermuda and Charleston, S. C., is related to the volume transport of the North Atlantic eddy and consequently to the forces determining the position of the periphery of the Atlantic Current in the Grand Banks sector. While the difference in sea level between Bermuda and Charleston is not directly measurable the fluctuations in the difference are available from the fluctuations at each station. Since it was anticipated that a weak North Atlantic eddy would result in a retreat of the cold wall and therefore an increase in the adjusted area A the sea level variable used was the sea level at Charleston minus the departure from average sea level at Bermuda. A very good correlation existed between this variable and the adjusted area A in the Grand Banks sector 13½ months later as checked by 27 surveys made during the period 1934–41.

With the resumption of oceanographic work in 1948 no agreement could be found between the adjusted area A predicted from the tide-gage readings at Bermuda and Charleston and the adjusted area A found during surveys of the area. In 1952 it was realized that the time lag no longer was the 13½ months found during the prewar surveys but about 11½ months. Using this time lag for the postwar surveys a new relationship was computed as

$$A = 6.97(H - 5.07) + 1.67$$

where A is the adjusted area in units of 10,000 sq. km and H is sea level at Charleston minus the Bermuda departure from an average of 4.16 expressed in feet. This gave a poor correlation. For example, during the first survey of 1957 the predicted adjusted area A was +0.55 whereas that actually found was +4.12. The predicted adjusted area A for the second survey was +5.22 as compared with an actual adjusted area of +6.02.

Changes have taken place in the sea level at Charleston and at Bermuda. The mean sea level at Charleston for the decade 1947–56 was 5.32 ft. instead of the 5.07 prewar mean. Mean sea level at Bermuda for this postwar decade was 4.33 ft. instead of the 4.16 which had been used in the past. The mean annual variation curve of sea level at Charleston minus the departure of sea level from the mean of 4.33 at Bermuda for this decade shows three maxima and three minima. From 1948 to 1957 there were 20 surveys made which included the position of the cold wall, seven during the month from mid-March to mid-April, six during the month from mid-April to mid-May, six during the month from mid-May to mid-June and one in the second half of June. The mean dates show a maximum near the April-May group. As this maximum could be related to any of the three maxima or any of the three minima in the sea level curve, each of the years during which more than one survey was made was examined as to consistency of sign of the change in adjusted area with the different time lags representing correlations with the different maxima and minima of the sea level curve. In none of the time lags was the sign consistent, the best being a time lag of 11.4 months where there were eight cases of positive sign and two negative. It must therefore be concluded that the very good correlation between the position of the cold wall as determined during the 27 prewar surveys and the Charleston-Bermuda tide-gage data was fortuitous and not real, and we must find other means of predicting the position of the cold wall.

In the more detailed examination of the circulation in the upper 1,000 meters with respect to the fluctuations in the Labrador Current particularly, certain sections have been occupied as frequently as operational considerations permit. Tentative normal seasonal variation relationships have been derived for some of these sections where the number of occupations has been sufficient and the distribution of the dates of the occupations has been satisfactory. Of these there were occupations of sections F, T, U, and W during the two 1957 surveys, and the component sections of the Bonavista triangle (NW, SW, SE) during the postseason cruise. An additional section across the Labrador Current off South Wolf Island, Labrador, repeated during the 1957 postseason cruise, has usually been occupied at about the same time of year and for this section average values, rather than normal seasonal variations have been used for comparison. The location of the section F is from the Grand Banks to Flemish Cap at the parallel of 46°45′ N. Section T runs southeasterly from about 46°20′ N. 49°00′ W. Section U runs easterly from the Grand Banks near the 45th parallel. Section W runs south from the Grand Banks along the meridian of 50°15′ W.

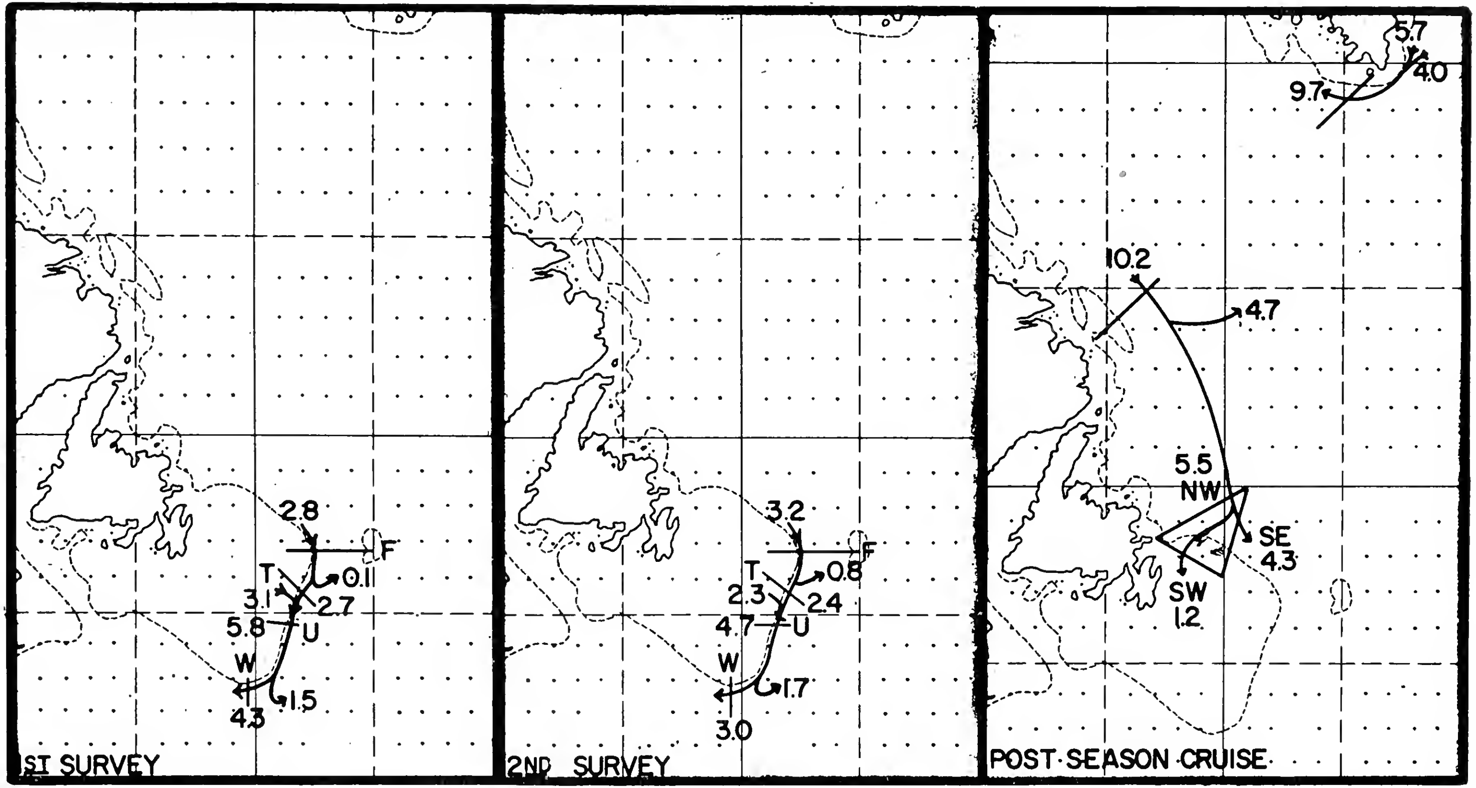

FIGURE 24.—Schematic representation of circulation deduced from sections occupied during 1957. Numerals indicate volume transport in units of cu.m/sec $\times 10^{-6}$.

During the two surveys and postseason cruise of 1957 there were 12 occupations of such sections across the Labrador Current. Table 1 gives the volume transport, mean temperature, minimum observed temperature and heat transport found during these occupations and lists the corresponding seasonal normal values for comparison. Both in the table and in the text, volume transport is expressed in millions of cubic meters per second, mean temperature and minimum observed temperature are given in degrees centigrade and heat transport is given in millions of cubic meter degrees centigrade per second.

Table 1.—Summary of velocity sections across Labrador Current occupied in 1957

Section	Volume transport			Mean temperature			Minimum observed temperature			Heat transport		
	1957	Normal	Anomaly	1957	Normal	Anomaly	1957	Normal	Anomaly	1957	Normal	Anomaly
First survey:												
F	2.84	2.75	+0.09	0.52	1.58	−1.06	−1.19	−1.26	+0.07	1.46	4.34	−2.88
T	2.68	3.37	−1.69	0.79	1.94	−1.15	−0.83	−1.40	+0.57	2.11	6.54	−4.43
U	5.83	5.26	+0.57	1.04	1.56	−0.52	−1.10	−1.20	+0.10	6.07	8.21	−2.14
W	4.31	4.23	+0.08	1.05	2.12	−1.07	−0.68	−0.53	−0.15	4.51	8.97	−4.46
Second survey:												
F	3.17	2.93	+0.24	1.54	1.79	−0.25	−1.62	−1.29	−0.33	4.88	5.24	−0.36
T	2.35	3.30	−0.95	2.02	1.80	+0.22	−1.23	−1.40	+0.17	4.76	5.94	−1.18
U	4.69	4.63	+0.06	1.35	2.15	−0.80	−1.50	−1.19	−0.31	6.32	9.95	−3.63
W	3.02	4.15	−1.13	2.04	2.82	−0.78	−0.66	−0.60	−0.06	6.16	11.70	−5.54
Postseason:												
NW	5.15	4.17	+0.98	1.99	1.49	+0.50	−1.62	−1.59	−0.03	10.23	6.21	+4.02
SW	1.29	0.66	+0.63	−0.37	0.20	−0.57	−1.66	−1.65	−0.01	−0.47	0.13	−0.60
SE	4.53	3.38	+1.15	2.94	2.07	+0.87	−1.33	−1.60	+0.27	13.31	7.00	+6.31
S. Wolf Is.	10.22	4.99	+5.23	2.96	2.48	+0.48	−1.70	−1.50	−0.20	30.26	12.38	+17.88

Figure 24 shows a schematic representation of the volume transports given in Table 1. In both the first and second surveys there was some loss of volume transport between sections F and T whereas there is normally some increase because of a contribution off the Grand Banks from the northwest between these sections. In 1957 apparently the contribution off the banks was larger than normal but occurred farther south between sections T and U resulting in about normal or somewhat larger than normal volume transports at sections F and U and subnormal volume transports at section T. At section W the volume transport was normal during the first survey but dropped off during the second survey instead of holding steady as is normal.

The mean temperature of the Labrador Current was decidedly below normal at each of the four sections during the first survey even though the minimum observed temperatures were normal or warmer than normal. By the time of the second survey, however, the mean temperature had warmed up at the two northern sections, but the two southern sections were still about 0.8° colder than normal. The minimum observed temperatures were lower during the second survey (except at section W) with a restoration of a more nearly normal profile of the Labrador Current.

The preponderance of negative anomalies of mean temperature made its effect felt in heat transport where the anomalies are all negative for both surveys. The occupation of the Bonavista triangle during the postseason cruise was not very satisfactory from the standpoint of equating horizontal inflow past the northwest side to outflow past the southwest and southeast sides. Thus the volume transport into the triangle was found to be 5.15, whereas the sum of the outflow past the other sides was 5.82. The volume transport anomalies were positive at all three sides. The mean temperatures were above normal at the two sides where the greatest transports exist and below normal along the southwest side. The resulting heat transport was hence correspondingly greater than normal with the above mentioned discrepancy of inflow and outflow being repeated and giving the inflowing heat at 10.23 and the outflowing heat at 12.84 for an average positive anomaly of 4.86. The minimum observed temperatures were near normal at the northwest and southwest sides and about a quarter of a degree above normal at the southeast side.

Farther north, off South Wolf Island, Labrador, the volume transport of the Labrador Current was found to be 10.22 which is some two times the average value for the 20 occupations of this section. The mean temperature was about a half degree warmer than average and the minimum observed temperature of −1.70 was near the coldest recorded for the 20 occupations (−1.72 in 1940 and −1.70 in 1949) and 0.2° colder than average. Because of the large volume transport and high mean temperature the positive anomaly of heat transport was very large. As the South Wolf Island section was occupied only a few days after the occupation of the Bonavista triangle and the volume transport found was about twice that past the Bonavista triangle a volume transport of 4.7 has been indicated in figure 24 as moving off to the eastward between the South Wolf Island section and Bonavista.[2]

At the Greenland end of the section across the Labrador Sea the West Greenland Current off Cape Farewell was also found to be unusually vigorous with a volume transport of 9.74 which is more than twice its seasonal normal of 4.41. Although the mean temperature of 4.15 was about three quarters of a degree below the seasonal normal of 4.89 the resulting heat transport of 40.39 was very large compared to its normal value of 21.56. If the mean temperatures of the East Greenland Current and Irminger Current components of the West Greenland Current are taken as constant at 3.2 and 5.5 respectively the computed volume transports of the components may be derived as 5.73 for the East Greenland Current component for a positive anomaly of 4.56 and 4.01 for the Irminger Current component for a positive anomaly of 0.77. As the mean temperatures have been assumed constant the anomalies of heat transport are proportional to those of volume transport and are computed as 14.60 and 4.23 respectively.

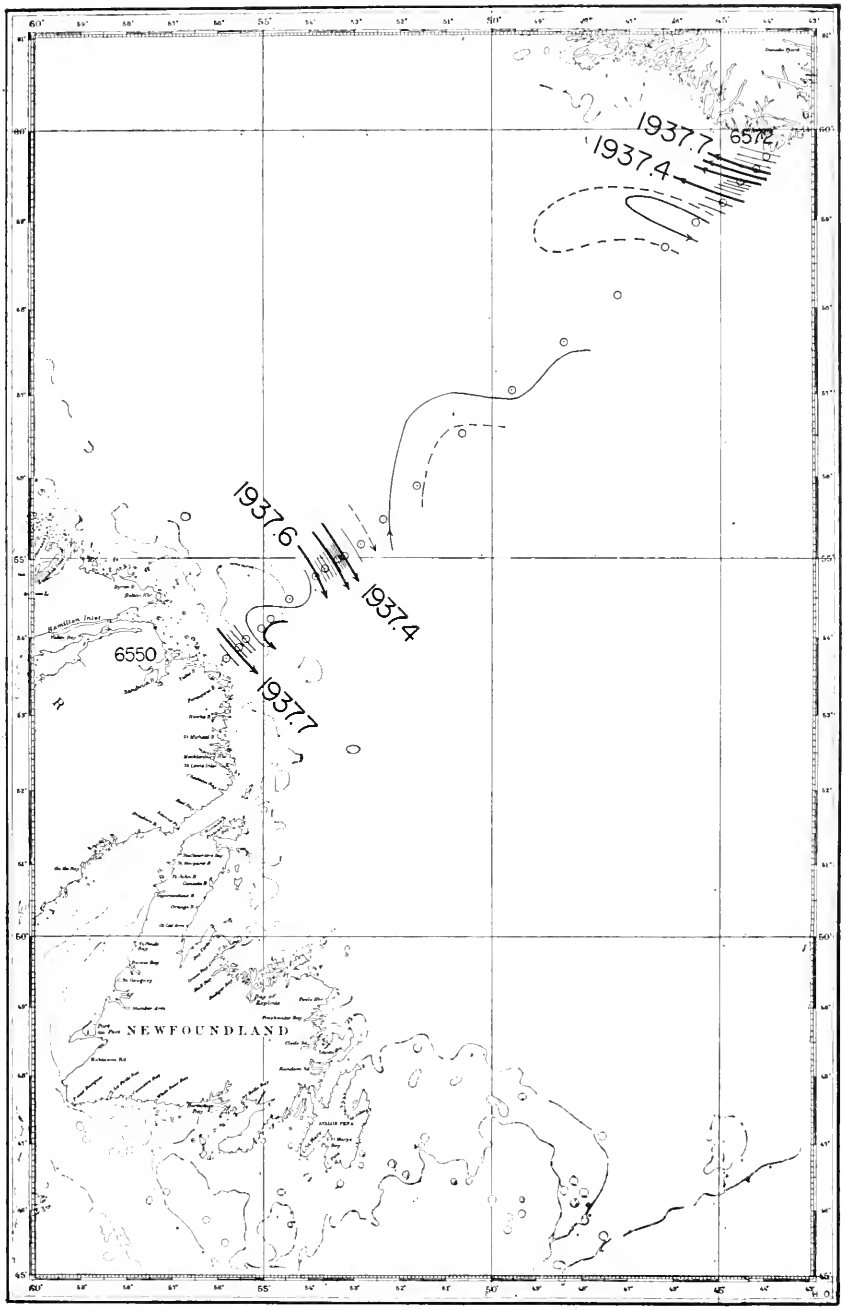

FIGURE 25.—Dynamic topography of the sea surface relative to the 2000-decibar surface from data collected 26–29 July 1957. Oceanographic station positions are indicated by circles.

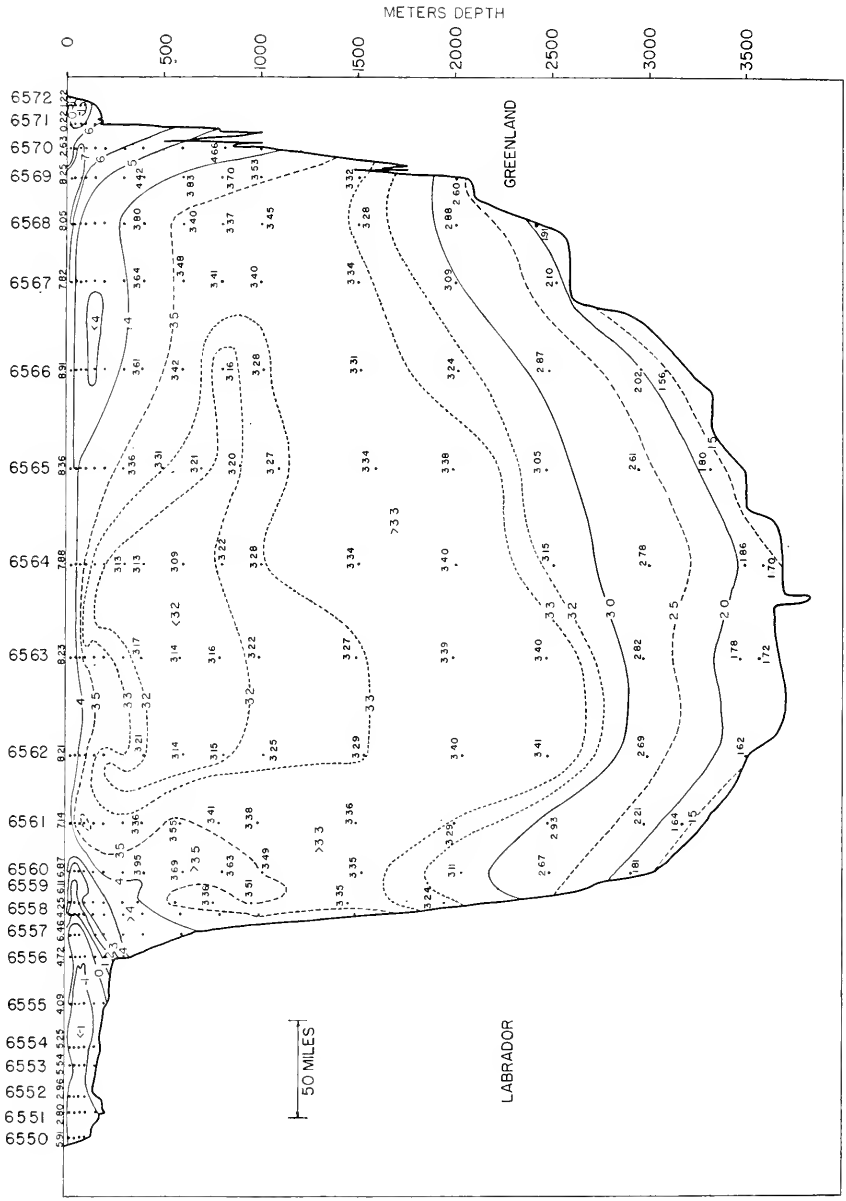

FIGURE 26.—Temperature distribution along section between South Wolf Island, Labrador and Cape Farewell, Greenland 26–29 July 1957.

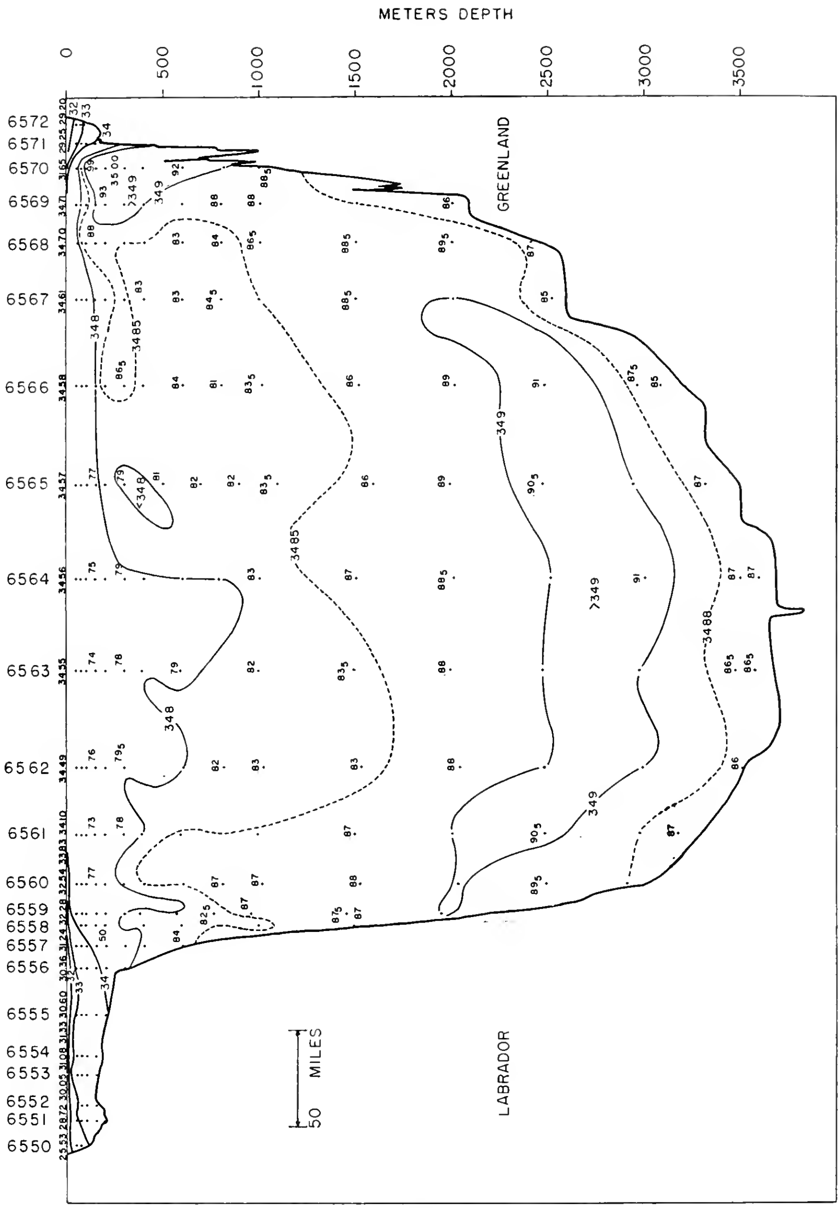

FIGURE 27.—Salinity distribution along section between South Wolf Island, Labrador and Cape Farewell, Greenland 26–29 July 1957.

Figures 25, 26, and 27 show respectively, the dynamic topography in the vicinity of the section across the Labrador Sea from South Wolf Island, Labrador to Cape Farewell, Greenland, and the temperature and salinity distributions along that section. The temperature and salinity distribution and the indications of the GEK have been considered along with the dynamic heights at the stations, in the construction of figure 25 which, of course, must remain an estimate away from the line of the section.

In figure 26 showing the temperature distribution along the section from South Wolf Island, Labrador to Cape Farewell, Greenland, one of the most interesting features is, as usual, the temperature minimum of the intermediate water in the central part of the section with the temperature maximum immediately below it. The minimum is considered to be a relic of the previous winter's cooling. In 1957 this minimum was cold and the temperature of 3.09° at station 6564 is 0.02° colder than any observation in the series of occupations from 1934 to 1941 and 1948 to 1957 (the previous low of 3.11° was observed in 1952). The northeastern end of the temperature minimum is narrowed in depth by the warmer water of the offshore portion of the West Greenland Current which returns eastward between stations 6566 and 6568. This eastward-returning flow explains the exceptionally wide band of warm water which might otherwise be misinterpreted as a broad band of the Irminger Current component of the West Greenland Current. The surface flow pattern is shown in figure 25.

The Irminger Current contribution to the West Greenland Current is shown more clearly by the salinity maximum near the Cape Farewell end of figure 27. As indicated in this figure the maximum salinity observed here was 35.00‰. This again is below the prewar values of the maximum which, in the 1930s was consistently about 35.04‰.

The motionless surface along this section does not lie at a uniform depth. It is at a deeper level than it is beneath the Labrador Current in the Grand Banks region and usually between 1,500 and 2,500 meters. The selection of a single level as reference for showing the dynamic topography of the entire section is then a compromise and its selection is materially assisted by studying the shape of the surfaces of equal potential density. These surfaces intersecting the Labrador Sea section occupied in 1957 indicated the most nearly motionless single level was at about 2,000 meters. The dynamic heights for this section therefore have been referred to the 2,000-decibar surface. The net volume transport across the section above this reference surface was computed to be 1.36×10^6 cu. m/sec net southeasterly.

[2] While the volume transport for the Bonavista triangle has been based on a reference surface of 1,000 decibars and the 2,000-decibar surface has been used for the South Wolf Island section about 90 percent of the transport at the latter section takes place above the 1,000-decibar surface which still leaves some 9.0×10^6 cu. m/sec off South Wolf Island compared with 5.5 past the Bonavista triangle.

In bulletin number 42 of this series average temperatures were plotted against average salinities for the intermediate water and for the deep water at 2,000, 2,500, 3,000 and 3,500 meters for each occupation of this section. For purposes of comparison similar values for the 1957 occupation of the section are given below:

1957 averages	T	S
Intermediate water	3.22	34.82_3 (stations 6562–6565)
2,000 meters	3.18	34.88_7
2,500 meters	2.95	34.89_4
3,000 meters	2.35	34.89_1
3,500 meters	1.75	34.86_5

Thus the intermediate water was near the cold limit of the group of occupations 1934–41 and 1948–57 and the salinity was lower than any other year of the group. In the deep water both temperature and salinity were close to these values for the 1953 occupation at 2,000, 2,500 and 3,000 meters and near the cold and low salinity limits of the group at 3,500 meters. The values of σ_t corresponding to these average temperatures and average salinities were smaller than found in 1956 at all levels. This continues the trend of the last two decades toward lighter water.

SUMMARY

1. The two dynamic topographic charts resulting from the season's current surveys and the dynamic topography found at the Bonavista triangle during the postseason cruise have been discussed with respect to surface circulation.

2. Temperature-salinity relationships of the Labrador Current water, Atlantic Current water and mixed water, found in the Grand Banks region during 1957, have been compared with mean T–S curves for the period 1948–57. The continuation of the trend of the last few years to increasing salinity in the upper 200 meters in the Labrador Current and freshening of the water below that level has been noted.

3. Year to year changes in density of the Labrador Current water have been noted for the periods 1934–41 and 1948–57.

4. The apparent relation between the position of the cold wall in the Grand Banks sector and sea level differences at Bermuda and Charleston were further investigated in the light of more recent data, and it was concluded that the correlation found in prewar years was fortuitous.

5. A more detailed analysis of the circulation in the upper 1,000 meters has been made on the basis of volume and heat transports and mean and minimum observed temperatures at 12 selected sections across the Labrador Current occupied during the 1957 season and postseason surveys.

6. The exceptionally vigorous circulation on both the Labrador and Greenland sides of the Labrador Sea in 1957 has been noted.

7. The temperature and salinity of the intermediate and deep waters of the Labrador Sea in 1957 have been examined and compared with averages for the groups of occupations during 1934–41 and 1948–57. The 1957 observations showed the intermediate water to have a salinity below any of the prior occupations and a temperature near the previous cold limit, and the deep water to be near average at 2,000, 2,500 and 3,000 meters, and near the cold- and low-salinity limits at 3,500 meters.

TABLE OF OCEANOGRAPHIC DATA

The data collected in 1957 are tabulated below. The individual station headings give the station number, date, geographical position, depth of water and dynamic height of the sea surface used in the construction of the dynamic topographic charts shown in figures 19, 20, 21 and 25. The depths of water are rough approximations, being the uncorrected sonic soundings based on a sounding velocity of 800 fathoms per second and containing an additional mechanical speed error of about 1/60. Where the depths of scaled values are enclosed in parenthesis, the data are based on extrapolated vertical distribution curves of temperature or salinity or both. Asterisks appearing before observed temperatures indicate that these temperatures were determined from the depth of reversal and the corrected reading of an unprotected thermometer. The symbol σ_t signifies 1,000 (density −1) at atmospheric pressure and temperature t.

Station 6336; 4 April; 43°35′ N., 51°30′ W.; depth 93 m.; dynamic height 971.142.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.77	32.60	0	1.77	32.60	26.10
28	1.77	32.60	25	1.75	32.60	26.10
55	1.44	32.80	50	1.55	32.75	26.22
84	0.63	33.44	75	0.90	33.25	26.66

Station 6337; 4 April; 43°29′ N., 51°35′ W.; depth 178 m.; dynamic height 971.139.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.28	32.65	0	1.28	32.65	26.16
26	1.29	32.65	25	1.30	32.65	26.16
53	1.02	32.70	50	1.10	32.69	26.20
80	−0.35	33.31	75	−0.20	33.24	26.72
107	1.25	33.68	100	0.95	33.61	26.95
159	1.75	33.90	150	1.70	33.88	27.11

Station 6338; 5 April; 43°25′ N., 51°34′ W.; depth 310 m.; dynamic height 971.114.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.70	32.77	0	0.70	32.77	26.29
26	0.71	32.77	25	0.70	32.77	26.29
50	0.27	33.06	50	0.27	33.06	26.55
76	1.48	33.48	75	1.45	33.47	26.81
101	4.69	34.07	100	4.65	34.06	26.99
152	4.34	34.12	150	4.35	34.12	27.07
202	3.97	34.23	200	4.00	34.23	27.19
303	2.98	34.32	300	3.00	34.32	27.37

Station 6339; 5 April; 43°21.5′ N., 51°38′ W.; depth 622 m.; dynamic height 971.078.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.69	32.81	0	0.69	32.81	26.33
24	0.69	32.81	25	0.70	32.81	26.33
47	0.67	32.83	50	0.75	32.85	26.36
70	1.34	33.38	75	2.10	33.55	26.83
93	------	34.07	100	5.10	34.07	26.95
140	3.98	34.06	150	3.70	34.03	27.06
187	2.62	33.88	200	2.70	33.95	27.09
280	3.28	34.40	300	3.35	34.50	27.47
501	3.51	34.54	(400)	3.45	34.79	27.69
514	3.49	34.71	(600)	3.50	34.83	27.72

Station 6340; 5 April; 43°11′ N., 51°48′ W.; depth 1,646 m.; dynamic height 971.081.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.77	32.82	0	0.77	32.82	26.33
24	0.78	32.82	25	0.80	32.82	26.33
47	0.78	32.81	50	1.10	32.97	26.43
70	4.98	33.88	75	5.80	34.09	26.88
93	------	34.87	100	9.85	34.86	26.89
140	8.70	34.76	150	8.70	34.79	27.02
187	8.68	34.92	200	8.55	34.92	27.15
280	6.89	34.87	300	6.00	34.85	27.46
416	3.06	34.74	400	3.20	34.74	27.68
624	3.93	34.86	600	3.90	34.85	27.70
834	3.93	34.87	800	3.95	34.87	27.71
1,048	3.72	34.84	1,000	3.75	34.85	27.71
1,580	3.44	34.82				

Station 6341; 5 April; 43°00′ N., 52°03′ W.; depth 2,652 m.; dynamic height 971.152.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.15	32.98	0	2.15	32.98	26.37
25	2.95	32.99	25	2.95	32.99	26.31
49	9.55	34.57	50	9.55	34.66	26.78
74	10.52	33.04	75	10.50	35.04	26.91
98	9.64	34.94	100	9.60	34.92	26.98
148	6.48	34.44	150	6.45	34.43	27.06
198	6.23	34.40	200	6.25	34.40	27.07
296	6.25	34.65	300	6.25	34.66	27.27
361	6.67	34.89	400	6.15	34.86	27.14
550	4.03	34.75	600	4.10	34.78	27.62
747	4.38	34.89	800	4.45	34.91	27.69
937	4.49	-------	1,000	4.45	34.92	27.70
1,417	4.34	34.92				

Station 6342; 5 April; 42°49.5′ N., 52°20′ W.; depth 3,155 m.; dynamic height 971.166.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.30	33.54	0	4.30	33.54	26.62
25	6.63	34.08	25	6.63	34.08	26.76
50	10.89	35.07	50	10.89	35.07	26.87
75	11.12	35.17	75	11.12	35.17	26.91
100	11.19	35.17	100	11.19	35.17	26.89
150	11.20	35.17	150	11.20	35.17	26.89
200	11.88	35.36	200	11.88	35.36	26.91
300	8.85	35.09	300	8.85	35.09	27.23
417	4.53	34.60	400	5.15	34.66	27.41
633	4.37	34.905	600	4.90	34.87	27.61
856	4.31	34.925	800	4.35	34.92	27.71
1,067	3.84	34.89	1,000	4.00	34.90	27.73
1,590	3.71	34.91				

Station 6343; 5 April; 42°35.5′ N., 52°50′ W.; depth 3,841 m.; dynamic height 971.145.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	10.64	35.05	0	10.64	35.05	26.90
25	10.66	35.05	25	10.66	35.05	26.89
50	10.70	35.05	50	10.70	35.05	26.89
75	10.70	35.06	75	10.70	35.06	26.90
100	10.91	35.11	100	10.91	35.11	26.90
150	11.22	35.20	150	11.22	35.20	26.91
200	7.78	34.61	200	7.78	34.61	27.02
300	6.86	34.74	300	6.86	34.74	27.25
339	5.48	34.56	400	5.55	34.69	27.38
496	5.62	34.92	600	5.30	34.98	27.64
647	5.13	34.99	800	4.80	35.00	27.72
825	4.77	35.00	1,000	4.45	34.99	27.75
1,297	3.96	34.955				

Station 6344; 6 April; 42°15.5′ N., 52°30′ W.; depth 4,070 m.; dynamic height 971.174.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.41	34.00	0	6.41	34.00	26.73
21	6.42	34.00	25	6.50	34.01	26.73
42	7.09	34.14	50	7.80	34.32	26.79
64	9.19	34.67	75	9.50	34.75	26.86
85	9.81	34.81	100	10.20	34.92	26.88
127	10.81	35.13	150	8.20	34.69	27.02
169	5.90	34.31	200	5.00	34.18	27.04
254	4.43	34.10	300	4.85	34.23	27.10
392	5.68	34.58	400	5.65	34.60	27.30
594	4.83	34.88	600	4.90	34.89	27.62
801	4.63	34.975	800	4.65	34.98	27.72
1,005	4.21	34.955	1,000	4.25	34.95	27.74
1,522	3.66	34.92				

Station 6345; 6 April; 42°00.5′ N., 52°04′ W.; depth 4,115 m.; dynamic height 971.188.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.81	35.33	0	11.80	35.33	26.90
27	11.81	35.32	25	11.80	35.22	26.90
53	11.83	35.33	50	11.85	35.33	26.89
80	11.84	35.325	75	11.85	35.33	26.89
106	11.84	35.33	100	11.85	35.33	26.89
160	11.86	35.33	150	11.85	35.33	26.89
214	11.85	35.33	200	11.85	35.33	26.89
320	9.61	35.18	300	10.05	35.22	27.13
413	7.63	35.01	400	7.95	35.03	27.32
622	5.32	34.975	600	5.45	34.98	27.62
834	4.60	34.98	800	4.70	34.98	27.71
1,045	4.21	34.96	1,000	4.30	34.96	27.74
1,576	3.68	34.935				

Station 6346; 6 April; 41°57.5′ N., 51°01′ W.; depth 3,338 m.; dynamic height 971.173.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.95	33.86	0	5.95	33.80	26.64
27	6.05	33.85	25	6.00	33.84	26.66
53	10.13	34.90	50	9.50	34.79	26.89
80	11.83	35.32	75	11.65	35.27	26.89
106	11.99	35.35	100	12.00	35.35	26.88
159	11.61	35.245	150	11.63	35.27	26.89
212	11.65	34.34	200	11.65	35.33	26.93
318	8.75	35.11	300	9.55	35.17	27.18
358	6.52	34.79	400	5.05	34.64	27.40
542	2.75	34.54	600	3.35	34.65	27.59
732	4.74	34.935	800	4.75	34.99	27.71
925	4.65	35.01	1,000	4.50	35.00	27.75
1,425	3.78	34.895				

Station 6347; 6 April; 42°22.5′ N., 51°33′ W.; depth 3,110 m.; dynamic height 971.197.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.71	33.49	0	4.70	33.49	26.53
27	11.03	35.13	25	10.45	35.00	26.89
53	12.05	35.385	50	12.00	35.37	26.90
80	12.18	35.42	75	12.15	35.41	26.90
106	12.23	35.425	100	12.20	35.43	26.90
160	12.26	35.425	150	12.25	35.43	26.89
212	11.99	35.37	200	12.10	35.39	26.89
318	10.31	35.27	300	10.65	35.29	27.08
383	8.49	35.10	400	8.15	35.08	27.33
576	5.69	34.97	600	5.55	34.97	27.61
772	4.78	34.99	800	4.70	34.98	27.71
974	3.86	34.89	1,000	3.80	34.89	27.74
1,492	3.69	34.91				

Station 6348; 6 April; 42°43′ N., 51°08′ W.; depth 1,920 m.; dynamic height 971.093.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.39	33.20	0	−0.39	33.20	26.70
26	−0.66	33.22	25	−0.65	33.22	26.72
51	−0.66	33.23	50	−0.65	33.23	26.73
77	−0.59	33.24	75	−0.60	33.24	26.73
103	0.03	33.29	100	−0.05	33.28	26.74
153	0.30	33.58	150	0.25	33.56	26.96
204	0.92	33.985	200	0.90	33.95	27.23
307	2.06	34.28	300	2.00	34.26	27.40
335	2.38	34.38	400	2.90	34.52	27.54
503	3.37	34.68	600	3.60	34.76	27.66
672	3.75	34.80	800	3.85	34.84	27.69
847	3.87	34.85	1,000	3.80	34.85	27.71
1,295	3.56	34.85				

Station 6349; 7 April; 42°54.5′ N., 50°54′ W.; depth 1,060 m.; dynamic height 971.074.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.42	32.89	0	0.42	32.89	26.40
25	0.41	32.89	25	0.41	32.89	26.40
50	0.00	33.12	50	0.00	33.12	26.61
76	−0.09	33.1	75	−0.10	33.16	26.64
101	−0.43	33.40	100	−0.40	33.39	26.85
150	0.50	33.82	150	0.50	33.82	27.15
200	1.27	33.97	200	1.30	33.97	27.22
301	3.13	34.44	300	3.15	34.44	27.44
358	-----	-----	(400)	3.60	34.72	27.63
			(600)	3.75	34.83	27.69
			(800)	3.75	34.84	27.70
			(1,000)	3.70	34.85	27.72

Station 6350; 7 April; 43°03′ N., 50°39′ W.; depth 183 m.; dynamic height 971.125.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.63	32.81	0	0.63	32.81	26.34
26	0.63	32.81	25	0.63	32.81	26.34
52	−0.39	33.17	50	−0.30	33.14	26.64
78	−0.58	33.26	75	−0.55	33.25	26.74
105	−0.31	33.42	100	−0.40	33.39	26.85
156	0.30	33.55	150	0.25	33.53	26.93
191	0.39	33.70	(200)	0.40	33.74	27.09

Station 6351; 7 April; 43°07.5′ N., 50°31′ W.; depth 89 m.; dynamic height 971.129.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.45	32.865	0	0.45	32.865	26.38
25	0.44	32.86	25	0.44	32.86	26.38
50	0.41	32.87	50	0.41	32.87	26.39
75	−0.22	33.34	75	−0.22	33.34	26.80

Station 6352; 7 April; 43°20.5′ N., 50°16′ W.; depth 64 m.; dynamic height 971.148.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.78	32.68	0	0.78	32.68	26.22
26	0.73	32.69	25	0.75	32.69	26.22
52	0.72	32.70	50	0.70	32.70	26.23

Station 6353; 7 April; 42°56′ N., 50°17′ W.; depth 89 m.; dynamic height 971.122.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.04	33.06	0	0.04	33.06	26.56
23	0.01	33.06	25	0.00	33.06	26.56
45	0.00	33.065	50	0.00	33.07	26.57
68	−0.26	33.24	(75)	−0.35	33.29	26.75

Station 6354; 7 April; 42°48′ N., 50°15′ W.; depth 320 m.; dynamic height 971.105.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.48	33.18	0	−0.48	33.18	26.68
24	−0.47	33.175	25	−0.45	33.18	26.68
48	−0.50	33.205	50	−0.50	33.22	26.71
71	−0.62	33.36	75	−0.65	33.37	26.84
95	−0.64	33.42	100	−0.65	33.43	26.89
142	−0.38	33.51	150	−0.30	33.53	26.95
190	0.10	33.66	200	0.20	33.69	27.06
285	1.39	33.97	(300)	1.60	34.02	27.24

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Station 6355; 7 April; 42°37.5′ N., 50°17′ W.; depth 1,829 m.; dynamie height 971.007.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.62	33.21	0	−0.62	33.21	26.71
25	−0.68	33.21	25	−0.68	33.21	26.72
49	−0.65	33.24	50	−0.65	33.25	26.75
74	0.04	33.59	75	0.05	33.60	27.00
98	0.49	33.80	100	0.50	33.83	27.15
148	1.36	34.12	150	1.40	34.13	27.34
196	1.88	34.27	200	1.90	34.28	27.42
294	2.34	34.42	300	2.40	34.44	27.51
333	2.90	34.595	400	3.10	34.66	27.63
501	3.35	34.73	600	3.60	34.80	27.69
673	3.69	34.84	800	3.70	34.84	27.71
851	3.68	34.845	1,000	3.65	34.85	27.72
1,310	3.61	34.855				

Station 6356; 7 April; 42°18′ N., 50°21′ W.; depth 2,898 m.; dynamic height 970.945.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.88	33.54	0	0.88	33.54	26.90
27	0.96	33.63	25	0.95	33.62	26.96
52	1.37	33.845	50	1.30	33.83	27.10
79	1.89	------	75	1.85	34.03	27.22
104	1.92	34.215	100	1.90	34.19	27.35
157	2.43	34.40	150	2.35	34.38	27.46
210	2.58	34.50	200	2.55	34.48	27.53
314	3.17	34.65	300	3.05	34.63	27.60
408	4.17	34.835	400	4.10	34.82	27.66
609	3.79	34.85	600	3.80	34.85	27.71
808	3.65	34.865	800	3.65	34.86	27.73
1,019	3.58	34.87	1,000	3.60	34.87	27.75
1,566	3.45	34.875				

Station 6357; 7–8 April; 41°50′ N., 50°22′ W.; depth 3,749 m.; dynamic height 971.035.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.09	33.16	0	−0.09	33.16	26.64
27	−0.28	33.16	25	−0.25	33.16	26.65
53	−0.44	33.35	50	−0.40	33.32	26.79
80	−0.30	33.35	75	−0.35	33.49	26.92
106	−0.16	33.62	100	−0.20	33.60	27.01
160	0.79	33.87	150	0.55	33.82	27.15
214	4.23	34.49	200	3.45	34.34	27.33
320	3.59	34.65	300	3.65	34.63	27.54
404	3.68	34.74	400	3.65	34.74	27.63
605	3.74	34.81	600	3.75	34.81	27.68
808	3.72	34.845	800	3.75	34.84	27.70
1,013	3.63	34.85	1,000	3.65	34.85	27.72
1,534	3.55	34.865				

Station 6358; 8 April; 41°20.5′ N., 50°20′ W.; depth 3,749 m.; dynamic height 971.268.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.09	35.83	0	14.09	35.83	26.83
26	14.10	35.825	25	14.10	35.83	26.82
51	14.12	35.825	50	14.10	35.83	26.82
77	14.13	35.83	75	14.10	35.83	26.82
103	14.15	35.835	100	14.15	35.83	26.81
153	14.19	35.855	150	14.20	35.85	26.82
205	14.10	35.835	200	14.10	35.84	26.83
308	12.14	35.55	300	12.35	35.57	26.98
414	9.46	35.19	400	9.80	35.24	27.19
622	4.83	34.78	600	5.10	34.79	27.52
832	5.03	35.00	800	5.00	34.98	27.68
1,036	4.45	34.96	1,000	4.55	34.97	27.73
1,541	3.70	34.91				

Station 6359; 8 April; 40°55.5′ N., 50°15′ W.; depth 3,660 m.; dynamic height 971.275.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	13.84	35.77	0	13.84	35.77	26.83
25	13.83	35.745	25	13.83	35.745	26.82
49	13.81	35.74	50	13.80	35.74	26.82
74	13.79	35.74	75	13.80	35.74	26.82
98	13.03	35.76	100	13.80	35.76	26.83
148	13.83	35.755	150	13.80	35.75	26.82
196	13.68	35.725	200	13.60	35.72	26.85
294	11.10	35.25	300	10.75	35.19	26.99
303	10.42	35.14	400	8.80	35.09	26.99
472	7.74	35.06	600	6.15	34.95	27.51
654	5.62	34.895	(800)	4.95	34.90	27.62
	5.67	35.00	(1,000)	4.50	34.91	27.68
817	4.73	34.95				

Station 6360; 8 April; 41°55′ N., 49°25′ W.; depth 3,200 m.; dynamic height 970.985.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.47	33.36	0	1.47	33.36	26.72
28	1.21	33.43	25	1.25	33.42	26.78
54	1.12	33.55	50	1.15	33.53	26.87
82	1.90	33.95	75	1.65	33.86	27.10
109	2.27	34.09	100	2.15	34.05	27.22
163	6.15	34.78	150	5.05	34.64	27.40
217	4.26	34.57	200	4.85	34.62	27.42
325	3.51	34.66	300	3.55	34.63	27.55
420	4.76	34.90	400	4.55	34.86	27.64
631	4.84	35.02	600	4.85	35.02	27.73
844	4.18	34.95	800	4.35	34.96	27.74
1,058	3.94	34.935	1,000	4.00	34.94	27.76
1,593	3.63	34.93				

Station 6361; 8 April; 41°34.5′ N., 49°03′ W.; depth 3,292 m.; dynamic height 971.243.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.05	35.84	0	14.05	35.84	26.84
25	14.06	35.835	25	14.06	35.835	26.84
50	14.06	35.835	50	14.06	35.835	26.84
74	14.05	35.83	75	14.05	35.83	26.83
99	14.03	35.83	100	14.05	35.83	26.83
148	14.07	35.8 5	150	14.05	35.83	26.83
198	14.09	35.845	200	14.10	35.84	26.83
297	11.67	35.48	300	11.60	35.46	27.04
411	8.63	35.08	400	8.95	35.11	27.24
622	5.80	34.98	600	5.95	34.98	27.56
835	4.76	34.975	800	4.90	34.97	27.69
1,051	4.22	34.95	1,000	4.35	34.95	27.73
1,598	3.70	34.93				

Station 6362; 9 April; 41°03′ N., 48°28′ W.; depth 3,567 m.; dynamic height 971.407.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.62	35.935	0	14.62	35.935	26.80
26	14.64	35.94	25	14.65	35.94	26.79
52	14.65	35.935	50	14.65	35.93	26.78
78	14.64	35.935	75	14.65	35.93	26.78
104	14.64	35.93	100	14.60	35.93	26.79
155	14.63	35.93	150	14.60	35.93	26.79
206	14.60	35.925	200	14.60	35.925	26.79
310	14.54	35.91	300	14.55	35.91	26.79
384	13.01	35.59	400	12.65	35.55	26.90
568	8.76	35.15	600	8.15	35.08	27.33
749	5.05	34.79	800	5.00	34.84	27.57
942	4.83	34.98	1,000	4.75	34.98	27.70
1,436	4.01	34.96				

Station 6363; 9 April; 41°35.5′ N., 47°18′ W.; depth 4,298 m.; dynamic height 971.176.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.32	35.82	0	14.32	35.82	26.77
26	14.37	35.835	25	14.35	35.83	26.77
52	14.35	35.84	50	14.35	35.84	26.78
78	14.31	35.82	75	14.30	35.83	26.78
104	13.74	35.72	100	13.80	35.74	26.82
155	12.93	35.56	150	12.95	35.58	26.87
206	11.96	35.48	200	12.10	35.49	26.97
310	9.54	35.20	300	9.70	35.23	27.20
417	5.52	34.68	400	6.05	34.75	27.37
606	4.99	34.91	600	5.00	34.91	27.63
794	4.58	34.95	800	4.55	34.95	27.71
996	4.21	34.94	1,000	4.20	34.94	27.74
1,521	3.72	34.925				

Station 6364; 9 April; 42°01.5′ N., 47°56′ W.; depth 3,703 m.; dynamic height 971.036.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.14	34.60	0	9.14	34.60	26.80
26	8.71	34.60	25	8.70	34.60	26.87
52	8.15	34.56	50	8.20	34.57	26.93
78	6.94	34.37	75	6.95	34.38	26.95
104	8.84	34.815	100	8.50	34.78	27.04
155	5.98	34.515	150	6.05	34.53	27.19
207	6.14	34.65	200	6.10	34.63	27.26
311	6.28	35.05	300	6.30	35.02	27.55
433	5.69	35.00	400	5.95	35.01	27.59
661	4.31	34.91	600	4.55	34.93	27.69
897	4.21	34.95	800	4.25	34.93	27.72
1,122	3.90	34.93	1,000	4.10	34.94	27.75
1,684	3.51	34.87				

Station 6365; 9 April; 42°21.5′ N., 48°26′ W.; depth 3,010 m.; dynamic height 970.980.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.36	33.80	0	4.36	33.80	26.81
25	4.29	33.85	25	4.29	33.85	26.86
50	4.15	33.85	50	4.15	33.85	26.87
75	3.46	33.91	75	3.46	33.91	26.99
100	4.09	34.28	100	4.09	34.28	27.23
149	4.66	34.53	150	4.65	34.54	27.37
199	4.39	34.61	200	4.40	34.61	27.46
299	4.21	34.73	300	4.20	34.73	27.57
335	4.38	34.805	400	4.55	34.89	27.66
512	4.66	34.96	600	4.55	34.96	27.72
694	4.32	34.95	800	4.15	34.94	27.74
881	4.02	34.935	1,000	3.90	34.92	27.76
1,373	3.53	34.89				

Station 6366; 9 April; 42°42.5′ N., 49°02′ W.; depth 2,236 m.; dynamic height 970.947.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.57	33.71	0	1.57	33.71	26.99
26	1.49	33.78	25	1.50	33.78	27.05
52	1.47	33.88	50	1.45	33.87	27.13
78	2.16	34.14	75	2.05	34.11	27.28
104	2.85	34.24	100	2.75	34.23	27.31
155	3.91	34.50	150	3.80	34.47	27.41
207	4.94	34.80	200	4.90	34.78	27.53
311	4.96	34.905	300	4.95	34.90	27.62
405	4.85	34.94	400	4.85	34.94	27.66
607	4.27	34.94	600	4.30	34.94	27.72
811	3.82	34.89	800	3.85	34.89	27.73
1,019	3.61	34.88	1,000	3.65	34.88	27.74
1,546	3.51	34.895				

Station 6367; 10 April; 43°23.5′ N., 48°41′ W.; depth 1,829 m.; dynamic height 970.916.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.12	33.34	0	0.12	33.34	26.79
23	0.12	33.39	25	0.20	33.42	26.85
45	1.16	33.94	50	1.35	34.04	27.27
68	2.04	34.27	75	2.35	34.32	27.42
91	2.80	34.415	100	2.80	34.43	27.46
137	2.75	34.50	150	2.80	34.52	27.54
182	2.97	34.58	200	3.05	34.60	27.58
273	3.31	-------	300	3.35	34.71	27.64
419	3.48	34.785	400	3.50	34.77	27.68
630	3.63	34.85	600	3.60	34.84	27.72
845	3.59	34.87	800	3.60	34.87	27.75
1,060	3.45	34.86	1,000	3.50	34.86	27.75
1,603	3.40	34.87				

Station 6368; 10 April; 43°14.5′ N., 47°54′ W.; depth 3,246 m.; dynamic height 971.009.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.66	33.91	0	4.66	33.91	26.87
24	5.45	34.07	25	5.45	34.07	26.91
48	8.83	34.76	50	8.85	34.76	26.98
72	8.98	34.80	75	8.95	34.80	26.99
96	8.94	34.83	100	8.90	34.82	27.01
144	2.88	34.125	150	3.00	34.15	27.23
193	4.85	34.53	200	4.85	34.54	27.35
289	4.07	34.635	300	4.40	34.71	27.53
310	4.63	34.765	400	4.95	34.92	27.64
468	5.02	34.98	600	4.60	34.95	27.70
629	4.49	34.945	800	4.10	34.92	27.74
801	4.07	34.92	1,000	3.80	34.90	27.75
1,260	3.48	34.88				

Station 6369; 10 April; 42°59′ N., 47°15′ W.; depth 3,200 m.; dynamic height 971.166.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.03	35.765	0	14.03	35.765	26.79
25	14.06	35.76	25	14.06	35.76	26.78
52	14.02	35.76	50	14.00	35.76	26.79
77	13.81	35.73	75	13.80	35.73	26.81
103	13.19	35.59	100	13.25	35.61	26.83
154	12.20	35.41	150	12.25	35.43	26.89
205	11.15	35.23	200	11.30	35.25	26.94
308	6.87	34.73	300	7.00	34.76	27.25
459	6.03	34.915	400	6.25	34.84	27.41
692	5.28	35.035	600	5.60	35.01	27.63
926	4.43	34.97	800	4.85	35.01	27.72
1,157	4.09	34.94	1,000	4.30	34.95	27.73
1,738	3.57	34.91				

Station 6370; 10 April; 42°41′ N., 46°47′ W.; depth 3,978 m.; dynamic height 971.347.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
2	14.93	36.035	0	14.92	36.035	26.81
27	14.94	36.035	25	14.95	36.03	26.80
52	14.92	36.03	50	14.95	36.03	26.80
77	14.89	36.015	75	14.90	36.02	26.80
103	14.84	36.01	100	14.85	36.01	26.81
152	14.78	35.995	150	14.80	35.99	26.80
202	14.77	35.99	200	14.80	35.99	26.80
303	13.69	35.77	300	13.75	35.78	26.86
461	10.07	35.25	400	11.50	35.45	27.05
709	6.43	35.01	600	7.60	35.07	27.41
968	4.13	34.93	800	5.50	34.97	27.61
1,198	4.45	34.98	1,000	4.15	34.94	27.74
1,747	3.62	34.905				

STATIONS OCCUPIED IN 1957—Continued

Station 6371; 10 April; 42°24.5′ N., 46°15′ W.; depth 4,572 m.; dynamic height 971.458.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.86	36.04	0	14.86	36.04	26.83
23	14.90	36.04	25	14.90	36.04	26.82
47	14.91	36.04	50	14.90	36.04	26.82
71	14.93	36.05	75	14.95	36.05	26.82
95	14.97	36.07	100	14.95	36.07	26.83
142	14.97	36.07	150	14.95	36.07	26.83
189	14.97	36.07	200	14.95	36.07	26.83
284	14.97	36.075	300	14.90	36.06	26.83
393	13.91	35.805	400	13.80	35.79	26.85
592	10.22	35.265	600	10.05	35.25	27.16
794	6.84	35.03	800	6.70	35.02	26.50
999	4.71	34.905	1,000	4.70	34.90	27.65
1,521	4.12	34.95				

Station 6372; 11 April; 42°51′ N., 45°48′ W.; depth 4,663 m.; dynamic height 971.366.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.31	36.05	0	15.31	36.05	26.73
26	15.39	36.05	25	15.35	36.05	26.72
51	15.38	36.05	50	15.40	36.05	26.71
77	15.42	36.05	75	15.40	36.05	26.71
102	15.42	36.065	100	15.40	36.06	26.72
153	15.44	36.06	150	15.45	36.06	26.71
204	15.02	35.97	200	15.10	35.98	26.72
306	13.38	35.70	300	13.50	35.71	26.86
406	11.65	35.47	400	11.75	35.49	27.03
601	5.76	34.715	600	5.75	34.72	27.39
791	5.29	34.98	800	5.30	34.98	27.64
990	4.77	35.00	1,000	4.75	35.00	27.72
1,490	3.63	34.89				

Station 6373; 11 April; 43°10′ N., 45°26′ W.; depth 4,663 m.; dynamic height 971.049.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.67	34.66	0	7.67	34.66	27.08
26	8.71	34.89	25	8.65	34.89	27.10
52	9.00	34.965	50	9.00	34.96	27.11
78	9.03	34.97	75	9.00	34.97	27.12
103	9.02	34.97	100	9.00	34.97	27.12
156	8.08	34.82	150	8.20	34.84	27.14
207	6.60	34.65	200	6.80	34.67	27.21
310	5.51	34.76	300	5.55	34.75	27.43
357	5.31	34.78	400	5.15	34.80	27.52
528	4.70	34.875	600	4.60	34.91	27.67
694	4.55	34.94	800	4.40	34.94	27.71
881	4.23	34.94	1,000	4.05	34.93	27.74
1,370	3.51	34.895				

Station 6374; 11 April; 43°20′ N., 46°01′ W.; depth 4,663 m.; dynamic height 971.067.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.52	33.95	0	4.52	33.95	26.92
23	4.41	33.96	25	4.40	33.97	26.95
47	4.38	34.045	50	4.45	34.06	27.01
70	5.79	34.29	75	6.30	34.37	27.04
93	8.24	34.76	100	8.40	34.81	27.08
139	8.99	34.95	150	8.75	34.93	27.12
186	7.62	34.77	200	7.30	34.75	27.20
279	5.76	34.73	300	5.70	34.74	27.40
348	5.51	34.79	400	5.35	34.84	27.53
516	4.98	34.92	600	4.80	34.91	27.65
681	4.61	34.945	800	4.40	34.94	27.71
867	4.27	34.94	1,000	4.10	34.94	27.75
1,360	3.59	34.90				

Station 6375; 11 April; 43°32.5′ N., 46°37′ W.; depth 4,481 m.; dynamic height 971.050.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.62	34.91	0	9.62	34.91	26.97
18	9.34	34.875	25	9.20	34.85	26.99
35	9.02	34.79	50	8.05	34.66	27.02
53	7.85	34.63	75	7.25	34.50	27.01
70	7.26	34.515	100	7.20	34.50	27.02
105	7.20	34.50	150	6.00	34.40	27.10
140	6.19	34.395	200	5.35	34.49	27.25
210	5.28	34.51	300	4.90	34.65	27.43
434	4.68	34.81	400	4.70	34.78	27.55
651	4.47	34.92	600	4.50	34.91	27.68
866	4.18	34.93	800	4.30	34.93	27.71
1,082	3.92	34.81	1,000	4.00	34.92	27.75

Station 6376; 11 April; 43°43′ N., 47°12′ W.; depth 4,253 m.; dynamic height 971.011.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.54	33.885	0	4.54	33.885	26.86
27	4.81	33.98	25	4.80	33.97	26.91
53	4.79	34.16	50	4.80	34.13	27.03
80	7.56	34.67	75	7.15	34.58	27.08
106	7.00	34.66	100	7.15	34.67	27.16
160	3.92	34.32	150	4.45	34.38	27.26
214	4.59	34.55	200	4.40	34.49	27.36
320	4.67	34.73	300	4.65	34.70	27.50
418	4.55	34.83	400	4.55	34.81	27.60
628	4.26	34.90	600	4.30	34.90	27.69
837	3.94	34.89	800	4.00	34.89	27.72
1,052	3.64	34.88	1,000	3.70	34.88	27.74
1,600	3.45	34.875				

Station 6377; 12 April; 43°52.5′ N., 47°48′ W.; depth 3,887 m.; dynamic height 970.961.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.62	33.92	0	4.62	33.92	26.88
25	4.70	33.96	25	4.70	33.96	26.91
51	4.45	34.07	50	4.45	34.06	27.01
76	3.95	34.20	75	4.00	34.19	27.16
102	2.96	34.18	100	3.00	34.18	27.25
152	3.49	34.45	150	3.45	34.44	27.41
204	5.03	33.96	200	3.70	34.57	27.50
306	4.87	34.39	300	4.00	34.72	27.59
400	4.13	34.825	400	4.15	34.83	27.65
602	4.29	34.93	600	4.30	34.93	27.71
806	3.88	34.91	800	3.90	34.91	27.75
1,010	3.76	34.91	1,000	3.75	34.91	27.76
1,529	3.47	34.90				

Station 6378; 12 April; 44°00.5′ N., 48°18′ W.; depth 3,383 m.; dynamic height 970.922.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.73	34.01	0	2.73	34.01	27.14
22	2.73	34.005	25	2.75	34.01	27.14
45	2.61	34.01	50	2.55	34.01	27.16
68	2.46	34.00	75	2.40	34.01	27.17
91	2.26	34.075	100	2.40	34.14	27.27
136	3.05	34.46	150	3.35	34.53	27.49
181	3.71	34.63	200	3.85	34.70	27.58
272	4.08	34.81	300	4.10	34.83	27.66
368	4.08	34.86	400	4.05	34.86	27.69
556	3.80	34.87	600	3.75	34.87	27.73
747	3.70	34.885	800	3.70	34.88	27.74
943	3.57	34.88	1,000	3.55	34.88	27.75
1,450	3.38	34.885				

STATIONS OCCUPIED IN 1957—Continued

Station 6379; 12 April; 44°05.5′ N., 48°48′ W.; depth 1,646 m.; dynamic height 971.000.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.67	33.16	0	−0.67	33.16	26.67
25	−0.69	33.165	25	−0.69	33.165	26.68
49	−0.53	33.32	50	−0.50	33.33	26.80
74	−0.09	33.59	75	−0.05	33.60	27.00
98	0.35	35.72	100	0.40	33.74	27.09
148	1.30	34.09	150	1.30	34.10	27.32
198	2.09	34.295	200	2.10	34.30	27.42
296	2.78	34.55	300	3.00	34.63	27.61
286	3.08	34.665	400	3.35	34.74	27.66
433	3.43	34.765	600	3.55	34.79	27.68
586	3.52	34.79	800	3.65	34.83	27.70
752	3.64	34.83	1,000	3.60	34.85	27.73
1,194	3.57	34.855				

Station 6380; 12 April; 44°06.5′ N., 48°57′ W.; depth 650 m.; dynamic height 971.031.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.66	33.16	0	−0.66	33.16	26.67
24	−0.68	33.17	25	−0.70	33.17	26.68
47	−0.60	33.445	50	−0.60	33.48	26.92
70	−0.23	33.575	75	−0.20	33.59	27.00
93	0.02	33.635	100	0.10	33.68	27.05
140	1.04	33.99	150	1.15	34.07	27.31
187	1.66	34.24	200	1.70	34.26	27.42
281	1.90	34.325	300	1.95	34.35	27.48
484	2.81	34.59	(400)	2.35	34.47	27.54
			(600)	3.50	34.75	27.66

Station 6381; 12 April; 44°07′ N., 49°05′ W.; depth 165 m.; dynamic height 971.090.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.23	33.135	0	−0.23	33.135	26.63
23	−0.66	33.15	25	−0.70	33.15	26.66
46	−0.84	33.22	50	−0.85	33.23	26.73
69	−0.80	33.26	75	−0.75	33.27	26.76
93	−0.72	33.30	100	−0.65	33.33	26.81
138	−0.22	33.515	(150)	−0.10	33.58	26.98

Station 6382; 12 April; 44°09′ N., 49°13′ W.; depth 104 m.; dynamic height 971.118.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.07	33.16	0	−0.07	33.16	26.64
23	−0.16	33.15	25	−0.15	33.15	26.64
47	−0.22	33.14	50	−0.25	33.14	26.64
70	−0.42	33.17	75	−0.45	33.18	26.68

Station 6383; 12 April; 44°12.5′ N., 49°23′ W.; depth 50 m.; dynamic height 971.121.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.05	33.115	0	0.05	33.115	26.60
25	0.00	33.12	25	0.00	33.12	26.61
41	−0.04	33.11	(50)	−0.10	33.11	26.60

Station 6384; 12 April; 44°58.5′ N., 49°26′ W.; depth 62 m.; dynamic height 971.126.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.42	33.09	0	−0.42	33.09	26.60
25	−0.42	33.085	25	−0.42	33.085	26.60
51	−0.67	33.11	50	−0.65	33.11	26.63

Station 6385; 12 April; 44°55.5′ N., 49°10′ W.; depth 179 m.; dynamic height 971.123.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.47	33.015	0	−0.47	33.015	26.55
25	−0.47	33.02	25	−0.47	33.02	26.55
51	−0.90	33.10	50	−0.90	33.09	26.62
76	−0.94	33.12	75	−0.95	33.12	26.65
101	−0.98	33.18	100	−1.00	33.17	26.69
151	0.09	33.65	150	0.05	33.64	27.03

Station 6386; 12 April; 44°54′ N., 49°01′ W.; depth 640 m.; dynamic height 971.054.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.81	33.02	0	−0.81	33.02	26.56
24	−0.80	33.02	25	−0.80	33.02	26.56
48	−1.10	33.20	50	−1.10	33.21	26.73
72	−0.68	33.42	75	−0.60	33.44	26.89
96	0.06	33.65	100	0.10	33.68	27.05
143	0.72	33.885	150	0.75	33.90	27.20
190	0.94	33.97	200	1.00	34.00	27.26
286	1.81	34.29	300	1.90	34.31	27.45
328	2.00	34.35	400	2.35	34.44	27.51
523	3.00	34.64	(600)	3.40	34.76	27.68

Station 6387; 13 April; 44°51′ N., 48°43′ W.; depth 1,829 m.; dynamic height 970.913.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.11	33.41	0	−0.11	33.41	26.85
17	−0.07	33.42	25	−0.05	33.48	26.90
33	0.02	33.59	50	1.10	33.93	27.20
50	1.13	33.93	75	1.55	34.09	27.29
67	1.41	34.04	100	2.10	34.26	27.39
101	2.15	34.27	150	2.80	34.54	27.55
134	2.72	34.50	200	2.95	34.64	27.62
201	2.98	34.64	300	3.45	34.77	27.68
242	3.33	34.72	400	3.50	34.80	27.70
339	3.49	34.78	600	3.60	34.84	27.72
420	3.50	34.80	800	3.55	34.86	27.74
528	3.59	34.825	(1,000)	3.55	34.87	27.75
798	3.55	34.86				

Station 6388; 13 April; 44°48′ N., 48°25′ W.; depth 2,469 m.; dynamic height 970.898.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.80	33.57	0	0.80	33.57	26.93
28	1.16	33.78	25	1.10	33.76	27.06
55	2.12	34.20	50	2.00	33.99	27.18
82	2.80	34.39	75	2.65	34.35	27.42
109	2.56	34.445	100	2.65	34.43	27.48
165	3.09	34.575	150	2.95	34.53	27.53
219	4.05	34.77	200	3.65	34.71	27.61
328	4.07	34.85	300	4.05	34.84	27.67
406	3.99	34.87	400	4.00	34.87	27.71
616	3.78	34.89	600	3.80	34.89	27.74
832	3.48	34.86	800	3.45	34.86	27.75
1,048	3.43	34.87	1,000	3.45	34.87	27.76
1,590	3.39	34.885				

TABLE OF OCEANOGRAPHIC DATA—Continued
STATIONS OCCUPIED IN 1957—Continued

Station 6389; 13 April; 44°41′ N., 47°48′ W.; depth 3,429 m.; dynamic height 971.014.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.19	34.15	0	5.19	34.15	27.00
22	5.11	34.135	25	5.10	34.14	27.00
46	5.01	34.22	50	5.50	34.28	27.06
68	7.40	34.65	75	7.85	34.79	27.15
91	8.35	34.96	100	8.30	34.94	27.20
136	7.84	34.84	150	7.50	34.81	27.22
182	6.77	34.77	200	6.50	34.77	27.33
273	5.68	34.83	300	5.40	34.82	27.51
338	5.08	34.80	400	4.90	34.83	27.57
564	4.54	34.91	600	4.50	34.92	27.69
829	4.25	34.94	800	4.30	34.94	27.72
1,018	3.67	34.885	1,000	3.70	34.89	27.75
1,459	3.44	34.88				

Station 6390; 13 April; 44°35′ N., 47°10′ W.; depth 3,841 m.; dynamic height 971.152.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	10.11	35.19	0	10.11	35.19	27.10
26	10.05	35.18	25	10.05	35.18	27.10
50	10.09	35.18	50	10.10	35.18	27.09
76	10.01	35.17	75	10.00	35.17	27.11
101	9.92	35.155	100	9.95	35.16	27.11
152	9.37	35.07	150	9.35	35.07	27.14
202	8.84	34.96	200	8.85	34.96	27.13
303	8.66	34.975	300	8.65	34.98	27.17
371	8.48	34.95	400	8.00	34.93	27.24
561	5.14	34.82	600	4.95	34.82	27.56
755	4.47	34.915	800	4.45	34.93	27.70
958	4.43	34.97	1,000	4.40	34.96	27.73
1,493	3.49	34.88				

Station 6391; 13 April; 44°31′ N., 46°30′ W.; depth 3,841 m.; dynamic height 971.036.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	8.64	34.86	0	8.64	34.86	27.08
26	8.44	34.83	25	8.45	34.83	27.09
52	7.94	34.73	50	8.00	34.76	27.11
78	7.44	34.67	75	7.45	34.67	27.12
104	7.53	34.685	100	7.55	34.685	27.11
155	5.86	34.455	150	5.45	34.47	27.16
208	5.96	34.60	200	5.95	34.57	27.24
312	5.92	34.78	300	5.90	34.77	27.41
402	4.89	34.78	400	4.90	34.78	27.53
609	4.30	34.89	600	4.30	34.89	27.68
818	4.20	34.94	800	4.20	34.94	27.74
1,023	3.91	34.92	1,000	3.95	34.92	27.75
1,535	3.46	34.895				

Station 6392; 13 April; 44°26.5′ N., 45°52′ W.; depth 4,024 m.; dynamic height 971.041.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	13.01	35.71	0	13.01	35.71	26.96
25	12.93	35.69	25	12.93	35.69	26.96
50	10.38	35.115	50	10.38	35.115	27.00
75	8.37	34.79	75	8.37	34.79	27.07
100	8.13	34.80	100	8.13	34.80	27.11
150	5.47	34.385	150	5.47	34.385	27.16
201	5.14	34.485	200	5.15	34.48	27.26
301	5.13	34.68	300	5.15	34.68	27.42
458	5.46	34.97	400	5.35	34.87	27.55
688	4.43	34.94	600	4.85	34.95	27.67
919	4.01	34.93	800	4.20	34.94	27.74
1,147	3.45	34.86	1,000	3.80	34.91	27.76
1,715	3.40	34.89				

Station 6393; 13 April; 44°21.5′ N., 45°04′ W.; depth 4,253 m.; dynamic height 971.253.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	14.43	35.90	0	14.43	35.90	26.81
27	14.53	35.90	25	14.50	35.90	26.79
53	14.52	35.895	50	14.50	35.90	26.79
81	14.50	35.89	75	14.50	35.89	26.78
107	13.74	35.71	100	13.95	35.76	26.79
161	12.99	35.61	150	13.15	35.63	26.86
205	10.18	35.02	200	10.45	35.08	26.95
321	10.67	35.22	300	10.60	35.19	27.01
450	8.49	35.10	400	9.35	35.15	27.20
671	5.09	34.91	600	6.05	34.95	27.53
890	4.60	34.96	800	4.70	34.94	27.68
1,111	4.31	34.965	1,000	4.45	34.96	27.73
1,664	3.56	34.90				

Station 6394; 14 April; 44°51′ N., 44°57′ W.; depth 4,481 m.; dynamic height 971.154.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	10.99	------	0	10.99	34.92	26.73
25	10.73	------	25	10.73	34.89	26.76
51	10.35	34.885	50	10.35	34.85	26.79
76	10.33	34.85	75	10.30	34.85	26.80
101	10.01	34.89	100	10.00	34.89	26.88
151	9.84	34.835	150	9.85	34.83	26.86
202	8.69	34.69	200	8.75	34.69	26.93
303	7.66	34.85	300	7.70	34.85	27.22
324	5.58	34.665	400	5.50	34.77	27.46
490	5.39	34.90	600	5.00	34.94	27.65
660	4.77	34.95	800	4.50	34.95	27.71
839	4.39	34.945	1,000	4.10	34.92	27.74
1,310	3.53	34.88				

Station 6395; 14 April; 45°21.5′ N., 44°48′ W.; depth 4,481 m.; dynamic height 970.977.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.38	34.26	0	4.38	34.26	27.18
23	4.19	34.25	25	4.15	34.25	27.20
45	3.99	34.235	50	3.95	34.23	27.20
68	3.86	34.23	75	3.90	34.25	27.22
91	4.10	34.33	100	4.50	34.42	27.30
137	6.40	34.75	150	6.20	34.74	27.34
182	5.75	34.72	200	5.65	34.73	27.40
273	5.16	34.78	300	4.80	34.76	27.53
318	4.57	34.75	400	3.85	34.74	27.61
489	3.29	34.735	600	3.35	34.76	27.68
670	3.39	34.79	800	3.55	34.83	27.71
851	3.59	34.84	1,000	3.55	34.85	27.73
1,328	3.44	34.86				

Station 6396; 14 April; 45°23.5′ N., 45°33′ W.; depth 3,841 m.; dynamic height 970.890.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.86	34.35	0	3.86	34.35	27.31
25	------	34.38	25	3.75	34.38	27.33
50	3.55	34.38	50	3.55	34.38	27.35
75	3.14	34.415	75	3.14	34.415	27.42
100	3.01	34.45	100	3.01	34.45	27.47
150	3.07	34.50	150	3.07	34.50	27.50
200	3.21	34.63	200	3.21	34.63	27.59
300	3.31	34.74	300	3.31	34.74	27.67
397	3.48	34.79	400	3.50	34.79	27.69
583	3.62	34.845	600	3.60	34.85	27.73
760	3.53	34.86	800	3.50	34.86	27.75
955	3.42	34.86	1,000	3.40	34.86	27.76
1,449	3.33	34.87				

STATIONS OCCUPIED IN 1957—Continued

Station 6397; 14 April; 45°27.5′ N., 46°14′ W.; depth 3,475 m.; dynamic height 970.935.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	3.62	34.22	0	3.62	34.22	27.23
27	3.59	34.215	25	3.60	34.22	27.23
54	3.47	34.215	50	3.50	34.22	27.24
82	3.07	34.22	75	3.15	34.22	27.27
109	2.93	34.25	100	2.95	34.24	27.30
162	3.43	34.38	150	3.25	34.34	27.35
217	3.95	34.62	200	3.75	34.55	27.47
326	4.71	34.87	300	4.65	34.83	27.60
399	4.46	34.915	400	4.45	34.91	27.69
601	4.12	34.91	600	4.10	34.91	27.73
805	3.67	34.87	800	3.70	34.87	27.74
1,010	3.46	34.86	1,000	3.45	34.86	27.75
1,529	3.43	34.88				

Station 6398; 14–15 April; 45°23′ N., 46°50′ W.; depth 3,200 m.; dynamic height 970.930.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	2.71	34.01	0	2.71	34.01	27.14
26	3.08	34.05	25	3.05	34.04	27.13
52	3.68	34.18	50	3.65	34.17	27.19
78	3.11	34.17	75	3.15	34.17	27.23
103	4.05	34.40	100	3.95	34.37	27.32
156	4.58	34.645	150	4.55	34.63	27.45
207	4.90	34.78	200	4.85	34.76	27.52
310	4.71	34.88	300	4.75	34.87	27.62
407	4.40	34.90	400	4.45	34.90	27.68
616	3.78	34.875	600	3.80	34.88	27.73
828	3.60	34.87	800	3.65	34.87	27.74
1,042	3.47	34.87	1,000	3.50	34.87	27.76
1,586	3.44	34.89				

Station 6399; 15 April; 45°20′ N., 47°24′ W.; depth 2,926 m.; dynamic height 970.947.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	3.24	34.085	0	3.24	34.085	27.15
26	3.22	34.08	25	3.20	34.08	27.15
53	3.18	34.185	50	3.20	34.08	27.15
79	2.96	34.09	75	3.00	34.09	27.18
105	3.47	34.08	100	3.35	34.17	27.21
157	2.60	34.21	150	2.65	34.20	27.30
210	3.97	34.59	200	3.75	34.53	27.45
315	4.14	34.85	300	4.30	34.83	27.64
420	4.43	34.92	400	4.45	34.91	27.69
629	3.90	34.89	600	4.00	34.89	27.72
840	3.65	34.88	800	3.70	34.88	27.74
1,050	3.51	34.87	1,000	3.55	34.87	27.75
1,575	3.45	34.89				

Station 6400; 15 April; 45°35′ N., 47°50′ W.; depth 1,737 m.; dynamic height 970.921.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	0.83	33.67	0	0.83	33.67	27.01
21	0.99	33.74	25	1.05	33.76	27.07
43	1.41	33.89	50	1.50	33.93	27.17
64	1.61	34.02	75	1.95	34.12	27.30
86	2.51	34.22	100	2.75	34.30	27.37
128	3.08	34.42	150	3.25	34.49	27.47
170	3.35	34.54	200	3.50	34.62	27.56
256	3.76	34.76	300	3.90	34.79	27.65
289	3.89	34.79	400	3.85	34.82	27.68
445	3.79	34.835	600	3.65	34.85	27.72
612	3.64	34.85	800	3.50	34.86	27.75
792	3.52	34.86	1,000	3.50	34.87	27.76
1,286	3.42	34.87				

Station 6401; 15 April; 45°45.5′ N., 48°10′ W.; depth 622 m.; dynamic height 971.008.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	−0.73	33.07	0	−0.73	33.07	26.60
26	−0.74	33.07	25	−0.75	33.07	26.60
51	−0.73	33.16	50	−0.75	33.15	26.66
77	0.06	33.66	75	−0.05	33.63	27.02
102	0.85	33.88	100	0.75	33.86	27.17
152	1.01	33.98	150	1.00	33.97	27.24
203	1.26	34.07	200	1.25	34.06	27.30
305	2.54	34.525	300	2.50	34.50	27.55
365	2.92	34.635	400	3.05	34.67	27.64
568	3.36	34.77	(600)	3.40	34.78	27.69

Station 6402; 15 April; 45°50.5′ N., 48°18′ W.; depth 169 m.; dynamic height 971.050.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	−0.68	33.185	0	−0.68	33.185	26.70
25	−0.74	33.19	25	−0.74	33.19	26.70
51	−0.83	33.235	50	−0.80	33.23	26.73
76	−0.41	33.51	75	−0.45	33.49	26.93
101	−0.12	33.61	100	−0.15	33.61	27.02
151	−0.08	33.62	150	−0.05	33.62	27.02

Station 6403; 15 April; 45°53′ N., 48°23′ W.; depth 114 m.; dynamic height 971.055.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	−0.65	33.015	0	−0.65	33.015	26.56
25	−0.69	33.09	25	−0.69	33.09	26.61
50	−0.83	33.38	50	−0.83	33.38	26.85
74	−0.68	33.44	75	−0.65	33.44	26.90
99	−0.56	33.47	100	−0.55	33.47	26.92

Station 6404; 15 April; 45°59′ N., 48°33′ W.; depth 89 m.; dynamic height 971.072.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	−0.67	32.995	0	−0.67	32.995	26.55
25	−0.72	33.00	25	−0.72	33.00	26.55
50	−0.80	33.015	50	−0.80	33.015	26.56
75	−0.33	-------	(75)	−0.33	33.15	26.64

Station 6405; 15 April; 46°06.5′ N., 48°45′ W.; depth 82 m.; dynamic height 971.074.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	−0.53	33.00	0	−0.53	33.00	26.54
26	−0.53	33.01	25	−0.55	33.01	26.55
53	−0.57	33.01	50	−0.55	33.01	26.55
74	−0.80	33.09	75	−0.80	33.09	26.61

Station 6406; 15 April; 46°18′ N., 49°04′ W.; depth 70 m.; dynamic height 971.074.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	−0.45	32.975	0	−0.45	32.975	26.52
26	−0.47	32.98	25	−0.45	32.98	26.52
52	−0.51	32.99	50	−0.50	32.99	26.53

Station 6407; 15 April; 46°16′ N., 48°34′ W.; depth 91 m.; dynamic height 971.070.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.65	32.965	0	−0.65	32.965	26.52
27	−0.65	32.96	25	−0.65	32.96	26.51
53	−0.70	32.96	50	−0.70	32.96	26.51
80	−0.96	33.11	75	−0.90	33.08	26.61

Station 6408; 16 April; 46°14′ N., 48°03′ W.; depth 115 m.; dynamic height 971.058.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.78	32.99	0	−0.78	32.99	26.54
25	−0.82	33.00	25	−0.82	33.00	26.55
50	−0.99	33.04	50	−0.99	33.04	26.58
75	−1.17	33.275	75	−1.17	33.275	26.78
100	−0.94		(100)	−0.94	33.56	27.01

Station 6409; 16 April; 46°13′ N., 47°46′ W.; depth 169 m.; dynamic height 971.051.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.80	33.10	0	−0.80	33.10	26.62
26	−0.77	33.11	25	−0.75	33.11	26.63
53	−1.02	33.26	50	−1.00	33.23	26.74
79	−0.87	33.42	75	−0.90	33.39	26.87
105	−0.46	33.53	100	−0.55	33.51	26.95
157	0.39	33.78	150	0.35	33.74	27.09

Station 6410; 16 April; 46°11.5′ N., 47°28′ W.; depth 677 m.; dynamic height 970.987.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.50	33.33	0	−0.50	33.33	26.80
25	−0.51	33.36	25	−0.51	33.36	26.82
49	−0.47	33.41	50	−0.45	33.41	26.87
74	0.32	33.775	75	0.35	33.79	27.13
98	0.78	33.935	100	0.80	33.94	27.22
147	1.21	34.09	150	1.25	34.10	27.33
196	1.67	34.24	200	1.70	34.25	27.41
294	2.37	34.46	300	2.40	34.47	27.54
380	2.65	34.55	400	2.75	34.57	27.59
579	3.49	34.81	(600)	3.55	34.83	27.71

Station 6411; 16 April; 46°10.5′ N., 47°11′ W.; depth 1,463 m.; dynamic height 970.902.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.84	33.80	0	0.84	33.80	27.11
27	0.90	33.81	25	0.90	33.81	27.12
53	1.33	34.13	50	1.30	34.09	27.31
81	1.68	34.28	75	1.60	34.25	27.42
107	1.94	34.36	100	1.90	34.33	27.46
161	2.40	34.48	150	2.30	34.45	27.53
215	2.89	34.61	200	2.75	34.37	27.59
322	3.38	34.74	300	3.30	34.72	27.66
397	3.54	34.79	400	3.55	34.79	27.68
605	3.63	34.85	600	3.65	34.85	27.72
820	3.49	34.85	800	3.50	34.86	27.75
1,034	3.42	34.865	1,000	3.45	34.86	27.75
1,376	3.36	34.88				

Station 6412; 16 April; 46°08′ N., 46°36′ W.; depth 732 m.; dynamic height 970.894.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.11	34.14	0	2.11	34.14	27.29
25	2.09	34.16	25	2.09	34.16	27.31
50	2.10	34.22	50	2.10	34.22	27.36
75	2.15	34.305	75	2.15	34.305	27.42
100	2.18	34.33	100	2.18	34.33	27.44
150	2.68	34.48	150	2.68	34.48	27.51
200	3.14	34.63	200	3.14	34.63	27.59
300	3.48	34.755	300	3.48	34.755	27.66
402	3.73	34.835	400	3.75	34.83	27.69
604	3.67	34.86	600	3.70	34.86	27.73

Station 6413; 16 April; 46°05′ N., 46°00′ W.; depth 1,829 m.; dynamic height 970.888.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.31	34.165	0	2.31	34.165	27.30
25	2.31	34.195	25	2.31	34.195	27.33
50	2.38	34.21	50	2.38	34.21	27.33
76	2.41	34.34	75	2.40	34.34	27.43
101	2.54	34.365	100	2.55	34.36	27.44
151	2.68	34.53	150	2.70	34.53	27.55
202	2.91	34.60	200	2.90	34.60	27.60
303	3.90	34.82	300	3.90	34.82	27.68
400	3.87	34.85	400	3.88	34.85	27.70
600	3.64	34.86	600	3.64	34.86	27.73
800	3.48	34.86	800	3.49	34.86	27.75
1,000	3.44	34.86	1,000	3.44	34.86	27.75
1,499	3.38	34.87				

Station 6414; 16 April; 46°02′ N., 45°12′ W.; depth 3,383 m.; dynamic height 970.884.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.77	34.47	0	3.77	34.47	27.41
24	3.73	34.49	25	3.75	34.49	27.42
48	3.63	34.54	50	3.65	34.54	27.47
72	3.64	34.555	75	3.65	34.56	27.49
96	3.54	34.61	100	3.55	34.61	27.54
143	3.42	34.635	150	3.45	34.64	27.57
190	3.50	34.69	200	3.50	34.70	27.62
286	3.35	34.73	300	3.40	34.74	27.66
302	3.40	34.74	400	3.40	34.77	27.69
469	3.51	34.80	600	3.65	34.84	27.71
649	3.67	34.85	800	3.55	34.85	27.73
831	3.53	34.85	1,000	3.50	34.86	27.75
1,320	3.37	34.87				

Station 6415; 17 April; 46°01′ N., 44°38′ W.; depth 3,842 m.; dynamic height 970.989.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.05	34.625	0	7.05	34.625	27.14
18	7.28	34.62	25	7.30	34.62	27.10
36	7.24	34.62	50	7.05	34.60	27.12
54	6.91	34.58	75	6.40	34.53	27.15
71	6.47	34.535	100	6.00	34.52	27.20
107	5.91	34.515	150	6.15	34.64	27.27
143	6.19	34.62	200	5.85	34.73	27.37
214	5.72	34.745	300	4.65	34.75	27.54
323	4.39	34.75	400	4.05	34.77	27.62
497	3.84	34.81	600	4.00	34.86	27.70
680	4.09	34.89	800	3.90	34.88	27.72
873	3.80	34.88	1,000	3.75	34.88	27.73
1,395	3.56	34.89				

Station 6416; 17 April; 46°25′ N., 44°47′ W.; depth 1,554 m.; dynamic height 970.892.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.20	34.36	0	4.20	34.36	27.28
26	4.36	34.38	25	4.40	34.38	27.27
52	4.33	34.495	50	4.35	34.48	27.35
78	4.74	34.65	75	4.70	34.64	27.44
103	4.50	34.66	100	4.50	34.65	27.47
156	4.16	34.70	150	4.20	34.69	27.54
208	4.36	34.81	200	4.35	34.80	27.61
311	4.00	34.825	300	4.05	34.82	27.66
418	3.63	34.82	400	3.70	34.82	27.70
630	3.58	34.85	600	3.60	34.85	27.73
846	3.50	34.85	800	3.50	34.85	27.74
1,055	3.43	34.86	1,000	3.45	34.86	27.75
1,520	3.43	34.865				

Station 6417; 17 April; 46°30′ N., 44°48′ W.; depth 457 m.; dynamic height 970.874.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.50	34.585	0	4.50	34.585	27.42
27	4.54	34.595	25	4.55	34.59	27.42
54	4.86	34.67	50	4.85	34.67	27.46
81	4.48	34.67	75	4.60	34.67	27.48
108	3.83	34.645	100	4.00	34.65	27.53
163	3.64	34.70	150	3.70	34.68	27.58
216	3.55	34.73	200	3.55	34.72	27.63
324	3.68	34.80	300	3.65	34.78	27.66
436	3.59	34.84	400	3.65	34.83	27.70

Station 6418; 17 April; 46°36′ N., 44°50′ W.; depth 220 m.; dynamic height 970.877.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.98	34.42	0	2.98	34.42	27.43
26	2.98	34.42	25	3.00	34.42	27.45
52	3.00	34.43	50	3.00	34.43	27.45
78	2.96	34.45	75	2.95	34.44	27.46
104	2.91	34.505	100	2.90	34.49	27.51
156	3.03	34.57	150	3.00	34.56	27.56
208	3.29	34.67	200	3.25	34.65	27.60

Station 6419; 17 April; 46°41.5′ N., 44°53′ W.; depth 169 m.; dynamic height 970.877.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.00	34.42	0	3.00	34.42	27.45
27	2.99	34.405	25	3.00	34.42	27.44
53	3.00	34.42	50	3.00	34.42	27.45
80	2.98	34.435	75	3.00	34.43	27.45
107	2.91	34.47	100	2.90	34.46	27.49
159	3.03	34.605	150	3.00	34.58	27.57

Station 6420; 17 April; 46°50.5′ N., 44°56′ W.; depth 146 m.; dynamic height 970.883.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.98	34.38	0	2.98	34.38	27.41
25	2.97	34.37	25	2.97	34.37	27.41
49	2.95	34.375	50	2.95	34.38	27.41
74	2.94	34.39	75	2.95	34.39	27.42
99	2.80	34.435	100	2.80	34.44	27.47
133	2.89	34.485				

Station 6421; 17 April; 46°50.5′ N., 45°02′ W.; depth 169 m.; dynamic height 970.883.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.02	34.37	0	3.02	34.37	27.40
25	3.03	34.385	25	3.03	34.385	27.41
49	2.98	34.39	50	3.00	34.39	27.42
74	2.86	34.42	75	2.85	34.42	27.46
99	2.81	34.43	100	2.80	34.43	27.46
			(150)	3.00	34.50	27.51

Station 6422; 17 April; 46°49.5′ N., 45°18′ W.; depth 220 m.; dynamic height 970.881.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.01	34.37	0	3.01	34.37	27.40
25	2.98	34.38	25	2.98	34.38	27.41
49	2.98	34.38	50	3.00	34.38	27.41
74	2.94	34.39	75	2.95	34.39	27.42
98	2.82	34.435	100	2.85	34.44	27.47
147	2.99	34.58	150	3.00	34.58	27.57
196	3.28	34.67	200	3.30	34.67	27.62

Station 6423; 17 April; 46°48.5′ N., 45°44′ W.; depth 258 m.; dynamic height 970.890.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.83	34.35	0	2.83	34.35	27.40
24	2.82	34.34	25	2.80	34.34	27.40
48	2.78	34.35	50	2.80	34.35	27.41
72	2.80	34.355	75	2.80	34.36	27.42
96	2.81	34.365	100	2.80	34.37	27.43
143	2.82	34.40	150	2.85	34.42	27.46
191	3.18	34.58	200	3.25	34.61	27.57
239	3.64	34.74				

Station 6424; 17 April; 46°48.5′ N., 46°08′ W.; depth 320 m.; dynamic height 970.882.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.86	34.33	0	2.86	34.33	27.38
25	2.76	34.34	25	2.76	34.34	27.40
50	2.83	34.36	50	2.83	34.36	27.41
74	2.84	34.375	75	2.85	34.38	27.42
99	2.82	34.40	100	2.80	34.40	27.44
148	3.19	34.57	150	3.20	34.58	27.55
198	3.44	34.70	200	3.45	34.70	27.62
297	3.58	34.84	300	3.60	34.84	27.72

Station 6425; 17 April; 46°48.5′ N., 46°36′ W.; depth 677 m.; dynamic height 970.905.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.42	33.99	0	1.42	33.99	27.22
25	1.38	33.985	25	1.38	33.985	27.22
49	1.29	33.985	50	1.30	33.99	27.23
74	1.50	34.16	75	1.50	34.17	27.37
98	1.80	34.30	100	1.85	34.32	27.46
146	2.37	34.47	150	2.40	34.48	27.54
196	2.74	34.565	200	2.75	34.57	27.59
294	3.24	34.725	300	3.25	34.73	27.66
397	3.44	34.79	400	3.45	34.79	27.69
610	3.54	34.845	600	3.55	34.83	27.71

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1957—Continued

Station 6426; 17 April; 46°48.5′ N., 46°57′ W.; depth 1,243 m.; dynamic height 970.885.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.70	34.13	0	1.70	34.13	27.31
23	1.74	34.145	25	1.75	34.15	27.33
46	1.64	34.15	50	1.65	34.15	27.34
69	1.69	34.18	75	1.70	34.19	27.36
92	1.73	34.30	100	1.85	34.34	27.47
138	2.85	34.59	150	2.95	34.61	27.60
184	3.06	34.65	200	3.10	34.67	27.64
276	3.20	34.72	300	3.20	34.74	27.68
305	3.21	34.75	400	3.20	34.75	27.69
476	3.11	34.75	600	3.50	34.82	27.72
661	3.66	34.85	800	3.55	34.86	27.74
859	3.50	34.86	1,000	3.45	34.86	27.75
994	3.44	34.86				

Station 6427; 17 April; 46°48.5′ N., 47°15′ W.; depth 622 m.; dynamic height 970.986.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.86	33.15	0	−0.86	33.15	26.66
22	−0.80	33.27	25	−0.80	33.28	26.76
44	−0.81	33.33	50	−0.75	33.38	26.85
66	−0.53	33.53	75	−0.40	33.59	27.01
87	−0.15	33.655	100	0.10	33.75	27.11
131	0.86	33.98	150	1.05	34.04	27.29
175	1.29	34.12	200	1.60	34.21	27.39
262	2.43	34.48	300	2.65	34.55	27.58
280	2.50	34.52	400	3.05	34.67	27.64
454	3.14	34.72	(600)	3.25	34.81	27.73

Station 6428; 18 April; 46°48′ N., 47°23′ W.; depth 312 m.; dynamic height 971.039.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−1.03	33.10	0	−1.03	33.10	26.63
24	−1.10	33.12	25	−1.10	33.12	26.65
47	−1.19	33.24	50	−1.20	33.25	26.76
71	−1.12	33.36	75	−1.05	33.37	26.85
95	−0.78	33.46	100	−0.65	33.49	26.94
142	0.50	33.81	150	0.65	33.85	27.16
189	1.16	34.00	200	1.25	34.02	27.27
284	1.56	34.145	(300)	1.60	34.16	27.35

Station 6429; 18 April; 46°48′ N., 47°37′ W.; depth 169 m.; dynamic height 971.035.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.80	33.21	0	−0.80	33.21	26.72
23	−0.82	33.22	25	−0.85	33.22	26.72
47	−1.05	33.27	50	−1.05	33.29	26.78
69	−0.91	33.39	75	−0.85	33.42	26.89
93	−0.57	33.52	100	−0.45	33.56	26.99
140	------	-------	(150)	0.45	33.84	27.16

Station 6430; 18 April; 46°48.5′ N., 48°10′ W.; depth 117 m.; dynamic height 971.060.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.74	33.005	0	−0.74	33.005	26.55
25	−0.75	33.01	25	−0.75	33.01	26.56
49	−0.95	33.035	50	−0.95	33.01	26.58
73	−1.10	33.18	75	−1.10	33.19	26.71
97	−1.04	33.30	100	−1.05	33.32	26.81

Station 6431; 18 April; 46°48.5′ N., 48°50′ W.; depth 89 m.; dynamic height 971.076.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.73	32.91	0	−0.73	32.91	26.47
27	−0.73	32.915	25	−0.75	32.91	26.47
54	−0.75	32.92	50	−0.75	32.92	26.48
82	−0.77	32.92	75	−0.75	32.92	26.48

Station 6432; 1 May; 42°02.5′ N., 50°58′ W.; depth 3,292 m.; dynamic height 971.120.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.68	36.09	0	14.68	36.09	26.90
24	10.10	-------	25	10.10	34.95	26.92
49	10.52	-------	50	10.60	35.05	26.90
73	12.00	35.40	75	12.00	35.40	26.92
97	11.92	-------	100	11.95	35.39	26.92
146	12.39	-------	150	12.35	35.54	26.96
195	11.56	35.43	200	11.40	35.42	27.05
292	8.55	35.155	300	8.40	35.14	27.34
340	7.78	35.05	400	6.80	34.99	27.46
510	5.23	34.92	600	4.85	34.93	27.65
679	4.72	34.95	800	4.30	34.93	27.71
854	4.17	34.915	1,000	4.05	34.91	27.73
1,300	3.74	34.91				

Station 6433; 1 May; 41°59′ N., 52°00′ W.; depth 4,024 m.; dynamic height 971.010.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.68	33.34	0	1.68	33.34	26.69
25	−0.04	33.38	25	−0.04	33.38	26.75
49	0.07	33.34	50	0.10	33.35	26.79
73	0.85	33.62	75	0.85	33.65	26.99
97	1.79	33.95	100	1.80	33.96	27.17
147	1.52	34.13	150	1.50	34.14	27.34
196	1.74	34.24	200	1.75	34.25	27.41
293	2.69	34.49	300	2.75	34.50	27.53
387	2.96	34.59	400	3.05	34.60	27.58
602	4.63	34.945	600	4.65	34.94	27.69
833	4.39	34.965	800	4.45	34.97	27.74
1,044	4.03	34.93	1,000	4.10	34.94	27.75
1,576	3.68	34.92				

Station 6434; 1 May; 42°21′ N., 51°36′ W.; depth 3,338 m.; dynamic height 970.975.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.68	33.28	0	0.68	33.28	26.70
24	0.63	33.39	25	0.60	33.39	26.79
48	0.07	33.50	50	0.10	33.51	26.92
72	1.25	33.88	75	1.25	33.90	27.16
96	1.23	34.00	100	1.25	34.02	27.27
143	1.68	34.19	150	1.70	34.21	27.38
191	2.07	34.33	200	2.15	34.35	27.46
287	2.90	34.58	300	2.95	34.60	27.59
363	3.16	34.675	400	3.30	34.71	27.65
550	3.86	34.845	600	3.85	34.85	27.70
742	3.69	34.845	800	3.70	34.85	27.72
937	3.72	34.865	1,000	3.70	34.87	27.74
1,439	3.64	34.89				

Station 6435; 1 May; 42°42′ N., 51°07′ W.; depth 2,286 m.; dynamic height 971.092.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	0.90	33.28	0	0.90	33.28	26.69
24	−0.53	33.36	25	−0.55	33.36	26.82
47	−0.42	33.46	50	−0.40	33.46	26.91
71	−0.26	33.50	75	−0.25	33.51	26.94
95	−0.17	33.56	100	−0.15	33.57	26.99
142	0.29	33.72	150	0.40	33.76	27.11
189	0.76	33.89	200	0.85	33.93	27.21
284	1.49	34.15	300	1.55	34.17	27.36
372	*1.72	34.215	400	1.95	34.27	27.42
560	3.27	34.66	600	3.50	34.70	27.62
748	3.81	34.81	800	3.80	34.83	27.69
941	3.82	34.845	1,000	3.80	34.85	27.71
1,436	3.61	34.86				

Station 6436; 1 May; 42°52′ N., 50°54′ W.; depth 1,005 m.; dynamic height 971.135.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	0.18	33.20	0	0.18	33.20	26.67
23	0.05	33.21	25	0.00	33.21	26.69
46	−0.43	33.26	50	−0.45	33.28	26.76
69	−0.48	33.38	75	−0.43	33.40	26.86
92	−0.36	33.48	100	−0.30	33.50	26.93
138	−0.04	33.61	150	0.00	33.63	27.02
185	0.16	33.69	200	0.20	33.71	27.08
277	0.61	33.83	300	0.75	33.88	27.18
388	1.45	34.14	400	1.55	34.17	27.36
601	3.49	34.72	600	3.50	34.72	27.64
782	3.66	34.82	800	3.65	34.82	27.70
956	3.63	34.84	1,000	3.65	34.84	27.71

Station 6437; 1 May; 42°55′ N., 50°50′ W.; depth 403 m.; dynamic height 971.101.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	0.38	33.22	0	0.38	33.22	26.67
24	0.07	33.23	25	0.05	33.23	26.70
47	−0.10	33.24	50	−0.15	33.24	26.72
71	−0.43	33.26	75	−0.45	33.27	26.75
94	−0.48	33.33	100	−0.45	33.35	26.81
142	−0.17	33.49	150	−0.15	33.51	26.94
187	0.03	33.62	200	0.15	33.67	27.05
283	1.07	33.99	300	1.35	34.07	27.30
374	2.69	34.475	400	3.10	34.63	27.60

Station 6438; 1 May; 42°58.5′ N., 50°46′ W.; depth 146 m.; dynamic height 971.097.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	0.44	33.11	0	0.44	33.11	26.58
15	0.32	33.12	25	0.25	33.14	26.62
40	0.12	33.17	50	−0.05	33.19	26.67
65	−0.35	33.22	75	−0.35	33.23	26.71
90	−0.35	33.25	100	−0.35	33.27	26.74
130	−0.37	33.36				

Station 6439; 1–2 May 1957; 43°05′ N., 50°37′ W.; depth 89 m.; dynamic height 971.103.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	1.08	33.03	0	1.08	33.03	26.48
26	0.93	33.035	25	0.95	33.03	26.49
52	0.45	33.08	50	0.50	33.07	26.54
78	−0.29	33.29	75	−0.25	33.25	26.73

Station 6440; 2 May; 43°15′ N., 50°23′ W.; depth 71 m.; dynamic height 971.120.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	1.57	32.755	0	1.57	32.755	26.22
25	1.47	32.765	25	1.47	32.765	26.24
50	0.58	32.92	50	0.58	32.92	26.42

Station 6441; 2 May; 42°57′ N., 50°25′ W.; depth 89 m.; dynamic height 971.102.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	0.49	33.105	0	0.49	33.105	26.56
26	0.46	33.11	25	0.45	33.11	26.58
51	0.35	33.11	50	0.35	33.11	26.58
77	−0.13	33.17	75	−0.10	33.17	26.65

Station 6442; 2 May; 42°45′ N., 50°27′ W.; depth 329 m.; dynamic height 971.076.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	−0.25	33.20	0	−0.25	33.20	26.69
15	−0.31	33.20	25	−0.45	33.21	26.71
31	−0.48	33.22	50	−0.65	33.23	26.73
47	−0.66	33.22	75	−0.65	33.26	26.75
63	−0.65	33.25	100	−0.60	33.31	26.78
94	−0.60	33.30	150	−0.55	33.60	27.02
125	−0.61	33.37	(200)	−0.25	34.22	27.51
188	−0.32	34.10	(300)	0.90	34.66	27.80

Station 6443; 2 May; 42°30.5′ N., 50°30′ W.; depth 1,280 m.; dynamic height 971.057.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	−0.17	33.22	0	−0.17	33.22	26.70
27	−0.16	33.255	25	−0.15	33.22	26.70
52	0.08	33.275	50	0.05	33.26	26.72
79	2.77	33.78	75	2.50	33.75	26.95
104	1.71	33.815	100	1.90	33.81	27.05
158	1.00	33.93	150	1.05	33.91	27.19
210	1.57	34.03	200	1.45	34.01	27.24
314	2.03	34.36	300	2.00	34.32	27.45
325	2.24	34.42	400	2.60	34.57	27.60
489	3.17	34.69	600	3.30	34.73	27.66
654	3.32	34.74	800	3.40	34.75	27.67
863	3.41	34.75	1,000	3.50	34.76	27.67
1,092	3.57	34.775				

Station 6444; 2 May; 42°10.5′ N., 50°33′ W.; depth 2,743 m.; dynamic height 971.024.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	1.87	33.705	0	1.87	33.705	26.96
27	1.50	33.70	25	1.50	33.70	26.99
53	1.52	33.705	50	1.50	33.70	26.99
80	1.01	33.695	75	1.10	33.70	27.01
106	0.96	33.73	100	0.95	33.72	27.04
160	1.75	34.01	150	1.55	33.96	27.19
213	2.62	34.12	200	2.45	34.09	27.22
319	3.31	34.48	300	3.25	34.41	27.41
418	3.33	34.75	400	3.35	34.71	27.64
627	3.45	34.79	600	3.45	34.79	27.69
837	3.59	34.84	800	3.60	34.83	27.71
1,048	3.57	34.85	1,000	3.55	34.85	27.73
1,576	3.47	34.87				

Station 6445; 2 May; 41°40.5′ N., 50°25′ W.; depth 3,749 m.; dynamic height 971.125.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.70	35.27	0	11.70	35.27	26.88
25	11.81	35.28	25	11.81	35.28	26.86
50	11.95	35.32	50	11.95	35.32	26.87
75	12.13	35.375	75	12.13	35.375	26.88
100	12.08	35.38	100	12.08	35.38	26.88
148	12.32	35.41	150	12.30	35.41	26.87
198	12.12	35.49	200	12.10	35.49	26.97
298	8.54	35.10	300	8.50	35.10	27.29
327	7.67	35.065	400	5.55	34.89	27.54
493	3.76	34.70	600	3.55	34.74	27.64
661	3.52	34.765	800	3.70	34.82	27.70
837	3.73	34.83	1,000	3.65	34.85	27.72
1,299	3.55	34.855				

Station 6446; 2 May; 41°19′ N., 50°20′ W.; depth 3,475 m.; dynamic height 971.245.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	------	------	0	15.35	36.02	26.70
21	15.35	36.02	25	15.35	36.02	26.70
40	15.34	36.02	50	15.35	36.02	26.70
61	15.35	36.02	75	15.35	36.02	26.70
81	15.36	36.015	100	15.30	36.00	26.69
122	15.16	35.98	150	15.10	35.97	26.72
162	15.11	35.97	200	14.00	35.84	26.85
243	12.67	35.64	300	10.95	35.33	27.06
265	12.18	35.41	400	8.25	35.13	27.35
422	7.83	35.085	600	5.55	34.92	27.57
595	5.59	34.92	800	3.75	34.79	27.66
761	3.79	34.79	1,000	3.65	34.82	27.70
1,202	3.52	34.845				

Station 6447; 3 May; 41°00′ N., 50°14′ W.; depth 4,024 m.; dynamic height 971.232.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	13.55	35.705	0	13.55	35.705	26.84
21	13.55	35.71	25	13.55	35.71	26.85
43	13.52	35.70	50	13.50	35.70	26.85
64	13.47	35.69	75	13.45	35.69	26.85
85	13.43	35.69	100	13.45	35.70	26.86
128	13.49	35.695	150	13.40	35.68	26.85
171	13.24	35.65	200	12.20	35.43	26.90
256	10.11	35.07	300	9.20	34.97	27.08
342	8.69	34.935	400	8.00	34.94	27.25
518	6.87	34.96	600	6.10	34.97	27.54
696	5.29	34.98	800	4.90	34.97	27.69
893	4.66	34.965	1,000	4.50	34.96	27.72
1,425	3.84	34.925				

Station 6448; 3 May; 42°04′ N., 49°19′ W.; depth 3,200 m.; dynamic height 971.059.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.29	35.17	0	11.29	35.17	26.88
26	11.33	35.20	25	11.30	35.20	26.90
52	11.34	35.21	50	11.30	35.21	26.91
78	11.47	35.23	75	11.45	35.22	26.89
103	12.06	35.46	100	12.00	35.45	26.96
156	9.58	35.14	150	9.80	35.17	27.14
207	8.62	35.14	200	8.75	35.14	27.29
310	6.07	34.86	300	6.30	34.87	27.44
405	5.53	34.90	400	5.55	34.90	27.55
612	3.87	34.84	600	3.95	34.84	27.68
824	3.73	34.845	800	3.75	34.84	27.70
1,034	3.63	34.86	1,000	3.65	34.86	27.73
1,565	3.53	34.86				

Station 6449; 3 May; 41°34′ N., 48°49′ W.; depth 3,338 m.; dynamic height 971.077.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.50	34.21	0	6.50	34.21	26.89
27	6.30	34.21	25	6.30	34.21	26.91
52	5.89	34.14	50	5.90	34.15	26.91
79	7.39	34.47	75	7.10	34.41	26.96
105	9.54	34.99	100	9.45	34.95	27.02
158	6.66	34.57	150	7.00	34.63	27.14
210	8.36	34.95	200	8.10	34.89	27.19
315	7.58	35.04	300	7.70	35.03	27.36
382	6.66	35.00	400	6.45	35.00	27.51
597	4.95	34.98	600	4.95	34.98	27.68
831	4.52	34.98	800	4.60	34.98	27.72
1,044	4.11	34.95	1,000	4.20	34.96	27.76
1,575	3.69	34.91				

Station 6450; 3 May; 41°00′ N., 48°30′ W.; depth 3,200 m.; dynamic height 971.110.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.77	35.12	0	10.77	35.12	26.94
24	10.79	34.96	25	10.75	35.12	26.94
48	10.38	35.035	50	10.35	35.03	26.93
72	10.21	34.995	75	10.15	34.99	26.93
96	9.94	34.94	100	9.95	34.96	26.95
145	10.23	35.05	150	10.15	35.03	26.96
193	7.43	34.69	200	7.35	34.69	27.14
289	*7.02	34.79	300	6.55	34.74	27.29
346	3.24	34.425	400	3.85	34.58	27.48
529	5.22	34.925	600	4.95	34.94	27.65
720	4.57	34.95	800	4.55	34.95	27.71
910	4.54	34.94	1,000	4.45	34.94	27.71
1,400	3.84	34.91				

Station 6451; 4 May; 40°56.5′ N., 47°41′ W.; depth 3,438 m.; dynamic height 971.101.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.52	35.47	0	12.52	35.47	26.88
27	12.20	35.41	25	12.20	35.41	26.89
52	11.94	35.36	50	11.95	35.36	26.90
79	11.81	35.33	75	11.80	35.33	26.90
104	11.59	35.32	100	11.65	35.32	26.92
157	11.06	35.34	150	11.15	35.34	27.03
210	9.65	35.18	200	9.90	35.21	27.15
314	7.58	35.01	300	7.90	35.04	27.34
356	4.84	34.65	400	4.85	34.71	27.49
547	4.87	34.935	600	4.80	34.94	27.67
748	4.46	34.94	800	4.40	34.94	27.71
945	4.25	-------	1,000	4.20	34.92	27.73
1,452	3.50	34.885				

Station 6452; 4 May; 41°38′ N., 47°16′ W.; depth 4,115 m.; dynamic height 971.200.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.73	35.91	0	14.73	35.91	26.76
25	14.71	35.90	25	14.71	35.90	26.75
51	14.31	35.83	50	14.30	35.83	26.78
77	14.05	35.77	75	14.05	35.77	26.79
102	13.85	35.74	100	13.85	35.74	26.81
153	12.66	35.50	150	12.70	35.51	26.87
204	11.54	35.32	200	11.65	35.34	26.94
306	6.92	34.59	300	7.05	34.61	27.13
358	6.89	34.70	400	6.55	34.76	27.31
535	5.37	34.89	600	5.25	34.94	27.62
713	5.11	34.99	800	4.70	34.96	27.70
897	4.38	34.93	1,000	4.25	34.92	27.72
1,367	3.82	34.91				

Station 6453; 4 May; 42°04.5′ N., 47°45′ W.; depth 3,749 m.; dynamic height 970.984.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	3.81	33.36	0	3.81	33.36	26.52
25	3.77	33.70	25	3.77	33.70	26.80
50	3.35	34.02	50	3.35	34.02	27.09
75	2.57	34.06	75	2.57	34.06	27.20
100	3.03	34.20	100	3.03	34.20	27.26
150	5.84	34.73	150	5.84	34.73	27.37
200	5.93	34.86	200	5.93	34.86	27.48
300	5.60	34.85	300	5.60	34.85	27.50
413	5.23	34.98	400	5.25	34.97	27.65
620	4.59	34.98	600	4.65	34.98	27.72
828	3.57	34.845	800	3.70	34.85	27.72
1,036	3.51	34.86	1,000	3.50	34.86	27.75
1,558	3.38	34.87				

Station 6454; 4 May; 42°25.5′ N., 48°35′ W.; depth 3,219 m.; dynamic height 971.043.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	10.10	34.86	0	10.10	34.86	26.85
26	10.18	34.95	25	10.15	34.95	26.90
52	10.20	34.98	50	10.20	34.97	26.92
78	10.26	35.02	75	10.25	35.01	26.94
104	9.58	35.03	100	9.70	35.03	27.04
155	8.61	34.99	150	8.70	35.00	27.18
208	7.09	34.84	200	7.30	34.85	27.28
312	5.86	34.86	300	5.95	34.85	27.46
414	5.47	34.92	400	5.50	34.91	27.57
622	5.01	35.01	600	5.05	35.01	27.70
832	4.26	34.94	800	4.35	34.95	27.73
1,040	3.98	34.92	1,000	4.00	34.92	27.75
1,561	3.52	34.90				

Station 6455; 4 May; 42°49′ N., 49°30′ W.; depth 2,103 m.; dynamic height 970.942.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	2.20	33.62	0	2.20	33.62	26.87
25	1.26	34.62	25	1.26	33.66	26.97
50	1.01	33.77	50	1.01	33.77	27.08
76	1.22	34.01	75	1.20	34.01	27.26
101	1.60	34.17	100	1.60	34.17	27.36
151	3.56	33.66	150	3.55	34.62	27.55
201	3.42	34.60	200	3.45	34.60	27.54
302	3.47	34.72	300	3.50	34.72	27.64
397	3.41	34.75	400	3.40	34.75	27.67
601	3.58	34.81	600	3.60	34.81	27.70
809	3.55	34.82	800	3.55	34.82	27.71
1,013	3.58	34.835	1,000	3.60	34.83	27.71
1,528	3.50	34.86				

Station 6456; 5 May; 43°21′ N., 48°48′ W.; depth 2,460 m.; dynamic height 970.938.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	1.86	33.50	0	1.86	33.50	26.81
26	1.97	33.54	25	1.95	33.54	26.83
52	2.08	33.97	50	2.05	33.93	27.13
78	2.88	34.20	75	2.80	34.18	27.27
104	2.96	34.38	100	2.95	34.36	27.40
155	4.42	34.66	150	4.30	34.65	27.50
208	3.62	34.63	200	3.70	34.63	27.54
312	4.69	34.90	300	4.60	34.87	27.64
411	4.33	34.88	400	4.35	34.89	27.68
617	4.09	34.905	600	4.10	34.90	27.72
823	3.56	34.85	800	3.60	34.85	27.73
1,030	3.67	34.89	1,000	3.65	34.89	27.75
1,552	3.41	34.87				

Station 6457; 5 May; 43°06.5′ N., 48°05′ W.; depth 3,347 m.; dynamic height 971.013.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	6.41	34.09	0	6.41	34.09	26.80
25	6.91	34.29	25	6.91	34.29	26.89
51	7.37	34.44	50	7.35	34.44	26.95
77	7.81	34.60	75	7.75	34.59	27.01
103	6.34	34.48	100	6.55	34.49	27.10
153	4.80	34.43	150	4.80	34.43	27.26
204	5.95	34.72	200	5.90	34.70	27.35
307	5.29	34.84	300	5.35	34.84	27.53
406	4.99	34.90	400	5.00	34.90	27.62
604	3.91	34.86	600	3.90	34.86	27.71
799	4.42	34.94	800	4.45	34.94	27.71
1,006	3.87	34.91	1,000	3.90	34.91	27.75
1,536	3.45	34.88				

Station 6458; 5 May; 42°51.5′ N., 47°26′ W.; depth 3,932 m.; dynamic height 971.042.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	8.61	34.78	0	8.61	34.78	27.03
25	8.50	34.78	25	8.50	34.78	27.04
50	8.83	34.89	50	8.83	34.89	27.08
75	8.81	34.90	75	8.81	34.90	27.09
100	8.71	34.90	100	8.71	34.90	27.11
150	8.41	34.88	150	8.41	34.88	27.13
199	6.71	34.69	200	6.65	34.69	27.24
299	5.60	34.75	300	5.60	34.75	27.42
393	5.37	34.87	400	5.35	34.87	27.55
593	4.41	34.905	600	4.40	34.90	27.68
796	3.88	34.88	800	3.90	34.88	27.72
996	3.77	34.89	1,000	3.75	34.89	27.74
1,500	3.49	34.875				

Station 6459; 5 May; 42°38′ N. ,46°51′ W.; depth 4,143 m.; dynamic height 971.217.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	15.64	36.00	0	15.64	36.00	26.61
27	14.84	35.92	25	14.90	35.92	26.72
53	14.28	35.83	50	14.30	35.84	26.79
80	13.93	35.76	75	14.00	35.77	26.80
106	13.65	35.70	100	13.70	35.71	26.82
160	12.23	35.42	150	12.50	35.47	26.88
214	10.48	35.08	200	10.90	35.17	26.95
320	8.00	34.82	300	8.55	34.86	27.10
361	5.38	34.44	400	5.45	34.53	27.27
526	5.59	34.89	600	5.30	34.92	27.60
681	4.91	34.935	800	4.70	34.94	23.68
853	4.63	34.95	1,000	4.40	34.93	27.70
1,286	3.89	34.91				

Station 6460; 5 May; 42°25′ N., 46°08′ W.; depth 4,663 m.; dynamic height 971.590.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	15.16	36.035	0	15.16	36.035	26.76
25	14.98	36.03	25	14.98	36.03	26.78
50	14.97	36.06	50	14.97	36.06	26.82
75	14.90	36.06	75	14.89	36.06	26.83
100	14.89	36.06	100	14.89	36.06	26.83
149	14.92	36.065	150	14.90	36.06	26.83
199	14.88	36.065	200	14.85	36.06	26.85
299	*14.82	36.07	300	14.80	36.07	26.87
429	*14.82	36.07	400	14.80	36.07	26.87
641	13.06	35.69	600	13.70	35.82	26.90
853	8.41	35.125	800	9.55	35.23	27.22
1,069	5.41	34.925	1,000	6.00	34.95	27.53
1,612	4.25	34.955				

STATIONS OCCUPIED IN 1957—Continued

Station 6461; 5 May; 42°47′ N., 45°42′ W.; depth 3,855 m.; dynamic height 971.525.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	16.07	36.17	0	16.07	36.17	26.66
25	16.08	36.16	25	16.08	36.16	26.65
51	15.91	36.12	50	15.90	36.12	26.65
77	15.92	36.125	75	15.90	36.12	26.65
103	15.26	36.00	100	15.30	36.01	26.70
153	14.96	36.015	150	14.95	36.01	26.79
205	14.87	36.015	200	14.90	36.01	26.80
308	14.88	------	300	14.85	36.04	26.83
419	*14.71	36.02	400	14.75	36.03	26.84
627	10.65	35.33	600	11.15	35.41	27.09
834	6.95	35.02	800	7.45	35.06	27.42
1,040	4.61	34.865	1,000	4.90	34.88	27.61
1,546	4.06	34.92				

Station 6462; 6 May; 43°10.5′ N., 45°22′ W.; depth 4,663 m.; dynamic height 971.460.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	16.34	36.23	0	16.34	36.23	26.63
25	16.35	36.22	25	16.35	36.22	26.62
50	16.35	36.22	50	16.35	36.22	26.62
75	16.37	36.22	75	16.37	36.22	26.62
100	16.36	36.23	100	16.36	36.23	26.62
150	15.29	35.98	150	15.29	35.98	26.68
200	15.02	35.99	200	15.02	35.99	26.75
300	13.82	35.74	300	13.82	35.74	26.82
397	13.02	35.67	400	13.00	35.67	26.93
586	9.49	35.20	600	9.05	35.16	27.25
769	5.43	34.82	800	5.30	34.82	27.52
957	4.74	34.90	1,000	4.65	34.90	27.66
1,421	4.00	34.94				

Station 6463; 6 May; 43°28.5′ N., 45°56′ W.; depth 3,750 m.; dynamic height 971.005.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.83	33.16	0	3.83	33.16	26.36
26	2.44	33.42	25	2.45	33.39	26.86
52	2.19	33.80	50	2.20	33.75	26.97
78	3.24	34.04	75	3.15	34.03	27.11
104	2.24	34.02	100	2.25	34.02	27.19
155	3.41	34.34	150	3.30	34.31	27.33
208	4.20	34.53	200	4.10	34.50	27.40
312	4.62	34.80	300	4.60	34.78	27.56
406	4.54	34.84	400	4.55	34.84	27.62
617	4.24	34.89	600	4.25	34.89	27.69
832	4.13	34.92	800	4.15	34.92	27.73
1,039	------	------	1,000	3.95	34.92	27.75

Station 6464; 6 May; 43°40.5′ N., 46°44′ W.; depth 4,390 m.; dynamic height 970.964.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.38	34.05	0	6.38	34.05	26.78
24	4.88	34.10	25	4.85	34.10	27.00
49	4.10	34.14	50	4.10	34.14	27.11
73	4.72	34.30	75	4.75	34.32	27.19
98	5.43	34.47	100	5.40	34.47	27.23
147	4.68	34.54	150	4.65	34.55	27.38
195	4.25	34.62	200	4.20	34.63	27.49
293	3.85	34.69	300	3.90	34.70	27.58
388	4.32	34.85	400	4.30	34.86	27.66
584	4.18	34.90	600	4.15	34.90	27.71
781	3.87	34.885	800	3.85	34.89	27.73
979	3.80	34.90	1,000	3.80	34.90	27.75
1,479	3.43	34.87				

Station 6465; 6 May; 43°47.5′ N., 47°22′ W.; depth 4,115 m.; dynamic height 971.086.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.86	34.49	0	7.86	34.49	26.91
26	8.14	34.58	25	8.15	34.57	26.94
52	8.40	34.74	50	8.40	34.73	27.02
78	8.78	34.91	75	8.75	34.90	27.10
104	8.82	34.93	100	8.80	34.93	27.11
155	8.72	34.92	150	8.70	34.92	27.12
207	8.03	34.83	200	8.15	34.84	27.14
311	5.91	34.69	300	6.05	34.70	27.33
407	5.46	34.81	400	5.50	34.71	27.41
617	4.47	34.91	600	4.55	34.90	27.67
832	3.96	34.89	800	4.00	34.89	27.72
1,040	3.69	34.87	1,000	3.70	34.87	27.74
1,561	3.44	34.87				

Station 6466; 6 May; 43°55′ N., 48°03′ W.; depth 3,566 m.; dynamic height 971.066.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	9.16	34.69	0	9.16	34.69	26.87
25	9.16	34.97	25	9.16	34.97	27.09
50	9.16	34.96	50	9.16	34.96	27.08
76	9.24	34.97	75	9.20	34.97	27.08
101	9.27	34.995	100	9.25	34.99	27.09
150	9.32	35.00	150	9.30	35.00	27.09
200	8.75	35.02	200	8.75	35.02	27.20
301	6.71	34.945	300	6.75	34.95	27.43
373	*6.10	------	400	5.90	34.91	27.52
563	4.78	34.89	600	4.70	34.90	27.65
755	4.44	34.92	800	4.40	34.92	27.70
953	4.11	34.92	1,000	4.10	34.92	27.74
1,467	3.61	34.89				

Station 6467; 6 May; 44°05.5′ N., 48°42′ W.; depth 2,195 m.; dynamic height 970.967.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.49	33.05	0	0.49	33.05	26.52
25	0.25	33.18	25	0.25	33.18	26.65
50	0.91	33.50	50	0.91	33.50	26.87
75	1.20	33.98	75	1.20	33.98	27.23
100	1.29	34.12	100	1.29	34.12	27.34
150	2.25	34.38	150	2.25	34.38	27.48
200	2.78	34.55	200	2.78	34.55	27.56
300	3.24	34.67	300	3.24	34.67	27.62
414	3.32	34.74	400	3.30	34.73	27.66
625	3.57	34.80	600	3.60	34.79	27.68
839	3.56	34.83	800	3.60	34.83	27.71
1,051	3.49	34.84	1,000	3.50	34.84	27.73
1,587	3.44	34.855				

Station 6468; 6 May; 44°07′ N., 48°48′ W.; depth 1,554 m.; dynamic height 970.969.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.39	32.92	0	−0.39	32.92	26.47
27	−0.13	33.11	25	−0.15	33.10	26.60
53	1.37	33.76	50	1.30	33.69	26.99
81	1.04	34.02	75	1.10	33.98	27.23
107	1.41	34.18	100	1.30	34.14	27.35
161	2.12	34.40	150	2.00	34.36	27.48
215	2.62	34.55	200	2.50	34.52	27.57
322	2.97	34.64	300	2.95	34.62	27.61
394	3.09	34.69	400	3.10	34.69	27.65
595	3.34	34.755	600	3.35	34.75	27.67
800	3.60	34.83	800	3.60	34.83	27.71
999	3.55	34.83	1,000	3.55	34.83	27.71
1,492	3.51	34.845				

STATIONS OCCUPIED IN 1957—Continued

Station 6469; 6–7 May; 44°10′ N., 48°59′ W.; depth 622 m.; dynamic height 971.050.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.47	32.91	0	−0.47	32.91	26.46
27	−0.59	32.93	25	−0.55	32.93	26.48
53	−1.19	32.99	50	−1.15	32.98	26.54
80	−1.14	33.32	75	−1.15	33.26	26.77
106	−0.58	33.53	100	−0.75	33.48	26.93
160	0.96	34.00	150	0.60	33.92	27.22
213	1.92	34.29	200	1.75	34.23	27.39
319	2.51	34.52	300	2.45	34.50	27.55
396	2.81	34.60	400	2.85	34.60	27.60
601	3.32	34.75	600	3.35	34.75	27.67

Station 6470; 7 May; 44°12.5′ N., 49°08′ W.; depth 169 m.; dynamic height 971.104.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.47	32.93	0	−0.47	32.93	26.48
26	−0.52	32.94	25	−0.50	32.93	26.48
51	−0.96	32.98	50	−0.90	32.97	26.53
77	−1.37	33.22	75	−1.35	33.20	26.73
102	−0.59	33.36	100	−0.60	33.35	26.82
154	−0.64	33.48	150	−0.65	33.47	26.93

Station 6471; 7 May; 44°14′ N., 49°13′ W.; depth 71 m.; dynamic height 971.099.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.43	32.94	0	−0.43	32.94	26.49
22	−0.08	33.04	25	−0.10	33.06	26.56
44	−0.13	33.21	50	−0.20	33.22	26.70
62	−0.36	33.255				

Station 6472; 7 May; 44°15.5′ N., 49°20′ W.; depth 53 m.; dynamic height 971.098.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.48	33.13	0	0.48	33.13	26.59
25	0.90	33.16	25	0.90	33.16	26.59
49	−0.16	33.17	50	−0.15	33.17	26.66

Station 6473; 7 May; 45°00′ N., 49°25′ W.; depth 71 m.; dynamic height 971.103.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.14	33.00	0	−0.14	33.00	26.53
25	−0.24	33.00	25	−0.24	33.00	26.53
50	−0.78	33.16	50	−0.78	33.16	26.67

Station 6474; 7 May; 44°58′ N., 49°15′ W.; depth 89 m.; dynamic height 971.110.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.37	32.89	0	−0.37	32.89	26.43
25	−0.51	32.92	25	−0.51	32.92	26.47
50	−0.62	32.98	50	−0.62	32.98	26.52
75	−0.87	33.07	75	−0.87	33.07	26.60
			(100)	−1.00	33.15	26.68

Station 6475; 7 May; 44°55.5′ N., 49°06′ W.; depth 622 m.; dynamic height 971.096.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.21	32.81	0	−0.21	32.81	26.38
23	−0.73	32.94	25	−0.85	32.95	26.50
47	−1.50	33.05	50	−1.50	33.06	26.61
70	−1.30	33.18	75	−1.30	33.20	26.72
93	−1.30	33.24	100	−1.25	33.25	26.76
140	−1.01	33.38	150	−0.85	33.42	26.89
187	−0.20	33.615	200	0.05	33.71	27.09
280	1.87	34.29	300	2.20	34.43	27.52
349	2.81	34.60	400	2.90	34.63	27.62
546	3.05	34.67	(600)	3.10	34.68	27.64

Station 6476; 7 May; 44°51′ N., 48°48′ W.; depth 1,554 m.; dynamic height 971.022.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.11	32.90	0	−0.11	32.90	26.43
22	−0.39	32.91	25	−0.40	32.91	26.46
44	−0.51	32.93	50	−0.65	32.99	26.54
67	−1.01	33.30	75	−0.90	33.36	26.84
89	−0.64	33.48	100	−0.45	33.57	27.00
133	0.26	33.78	150	0.90	33.97	27.25
177	2.21	34.29	200	2.40	34.41	27.49
266	2.74	34.59	300	2.85	34.62	27.62
280	2.76	34.39	400	3.05	34.68	27.64
427	3.08	34.69	600	3.25	34.74	27.67
579	3.21	34.735	800	3.45	34.80	27.70
737	3.45	34.795	1,000	3.50	34.83	27.72
1,154	3.53	34.85				

Station 6477; 7 May; 44°47.5′ N., 48°32′ W.; depth 1,737 m.; dynamic height 970.913.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.04	33.24	0	1.04	33.24	26.66
25	2.08	33.90	25	2.08	33.90	27.10
49	1.34	34.02	50	1.35	34.02	27.26
74	1.49	34.15	75	1.50	34.16	27.36
98	1.97	34.32	100	2.00	34.33	27.45
147	2.54	34.53	150	2.55	34.54	27.58
196	2.94	34.62	200	2.95	34.62	27.61
294	3.36	34.725	300	3.35	34.73	27.65
391	3.66	34.80	400	3.70	34.80	27.68
589	3.60	34.85	600	3.65	34.85	27.72
790	3.51	34.85	800	3.50	34.85	27.74
990	3.47	34.85	1,000	3.50	34.85	27.74
1,497	3.40	34.87				

Station 6478; 7 May; 44°38.5′ N., 47°49′ W.; depth 3,567 m.; dynamic height 970.974.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.50	33.77	0	4.50	33.77	26.78
25	4.60	33.81	25	4.60	33.81	26.80
50	5.07	34.15	50	5.07	34.15	27.02
75	7.89	34.76	75	7.89	34.76	27.13
99	6.38	34.56	100	6.25	34.55	27.18
149	2.53	34.20	150	2.50	34.20	27.31
199	4.57	34.64	200	4.60	34.65	27.46
298	5.68	34.98	300	5.70	34.98	27.59
413	4.58	34.845	400	4.65	34.90	27.66
621	3.80	34.865	600	3.85	34.87	27.72
830	3.55	34.855	800	3.55	34.86	27.74
1,037	3.48	34.86	1,000	3.50	34.86	27.75
1,555	3.40	34.875				

STATIONS OCCUPIED IN 1957—Continued

Station 6479; 8 May; 44°30′ N., 47°11′ W.; depth 3,932 m.; dynamic height 971.023.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	5.11	33.91	0	5.11	33.91	26.83
25	5.41	33.965	25	5.41	33.965	26.83
49	6.50	34.28	50	6.55	34.29	26.94
74	7.12	34.50	75	7.15	34.51	27.03
98	7.82	34.76	100	7.80	34.76	27.14
147	6.62	34.625	150	6.60	34.63	27.20
197	6.10	34.67	200	6.05	34.67	27.31
295	4.99	34.73	300	4.95	34.73	27.48
396	4.08	34.76	400	4.10	34.76	27.61
595	4.34	34.905	600	4.35	34.91	27.70
794	4.27	34.945	800	4.30	34.94	27.72
993	3.91	34.92	1,000	3.90	34.92	27.76
1,496	3.52	34.89				

Station 6480; 8 May; 44°22′ N., 46°34′ W.; depth 3,932 m.; dynamic height 970.973.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	6.35	34.25	0	6.35	34.25	26.94
25	6.37	34.25	25	6.37	34.25	26.94
50	7.77	34.67	50	7.77	34.67	27.07
75	7.28	34.71	75	7.28	34.71	27.18
100	6.80	34.66	100	6.80	34.66	27.20
150	6.38	34.78	150	6.38	34.78	27.35
201	5.10	34.67	200	5.10	34.67	27.43
301	5.00	34.86	300	5.05	34.86	27.58
340	5.10	34.90	400	4.90	34.92	27.65
515	4.62	34.935	600	4.30	34.92	27.71
695	3.99	34.89	800	3.90	34.90	27.74
880	3.82	34.90	1,000	3.70	34.89	27.75
1,360	3.42	34.87				

Station 6481; 8 May; 44°19.5′ N., 45°54′ W.; depth 3,932 m.; dynamic height 971.025.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	10.44	34.92	0	10.44	34.92	26.83
25	10.44	34.92	25	10.44	34.92	26.83
50	9.17	34.85	50	9.17	34.85	27.00
75	8.46	34.79	75	8.46	34.79	27.06
100	8.19	34.82	100	8.19	34.82	27.12
149	7.22	34.74	150	7.20	34.74	27.20
199	6.15	34.72	200	6.15	34.72	27.34
299	5.79	34.86	300	5.80	34.86	27.49
413	4.90	34.845	400	5.00	34.85	27.58
621	4.54	34.94	600	4.55	34.93	27.69
834	4.11	34.93	800	4.20	34.93	27.73
1,044	3.68	34.89	1,000	3.75	34.90	27.75
1,568	3.41	34.88				

Station 6482; 8 May; 44°11.5′ N., 45°16′ W.; depth 4,481 m.; dynamic height 971.058.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	8.49	34.47	0	8.48	34.47	26.80
25	10.81	35.09	25	10.81	35.09	26.90
51	9.30	34.87	50	9.35	34.88	26.9[illegible]
76	7.36	34.52	75	7.35	31.52	27.01
152	4.33	34.24	100	6.10	34.38	27.07
203	7.66	34.89	150	4.35	34.24	27.16
305	4.76	34.62	200	7.65	34.88	27.25
391	5.57	34.88	300	4.80	34.63	27.42
590	5.21	35.00	400	5.60	34.90	27.54
791	4.34	34.93	600	5.15	35.00	27.68
1,000	3.85	34.885	800	4.30	34.93	27.71
1,516	3.60	31.89	1,000	3.85	34.89	27.73

Station 6483; 8 May; 44°44.5′ N., 45°10′ W.; depth 4,253 m.; dynamic height 971.058.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	10.87	35.02	0	10.87	35.02	26.84
21	10.98	35.02	25	10.90	35.02	26.83
43	10.41	34.90	50	10.10	34.88	26.86
64	9.45	34.86	75	8.80	34.76	26.98
86	8.26	34.66	100	8.00	34.67	27.04
128	7.58	34.69	150	7.20	34.69	27.16
170	6.84	34.69	200	6.40	34.70	27.28
256	5.73	34.735	300	5.50	34.78	27.46
246	5.80	34.76	400	5.10	34.84	27.56
386	5.14	34.83	600	4.60	34.93	27.68
538	4.69	34.91	800	4.30	34.94	27.72
696	4.44	34.95	1,000	4.00	34.92	27.75
1,128	3.80	34.905				

Station 6484; 8 May; 45°17.5′ N., 45°15′ W.; depth 4,287 m.; dynamic height 971.087.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	10.18	34.89	0	10.18	34.89	26.86
27	10.21	34.89	25	10.20	34.89	26.85
53	10.1	34.90	50	10.20	34.90	26.86
79	9.93	34.94	75	10.00	34.93	26.91
105	9.23	34.93	100	9.35	34.93	27.02
159	7.86	34.77	150	8.05	34.80	27.13
211	6.49	34.62	200	6.75	34.65	27.20
316	6.10	34.79	300	6.15	34.76	27.37
392	5.87	34.885	400	5.85	34.88	27.49
595	3.98	34.81	600	4.00	34.81	27.66
805	4.08	34.87	800	4.10	34.87	27.70
1,014	3.94	34.89	1,000	3.95	34.89	27.72
1,548	3.42	34.86				

Station 6485; 9 May; 45°17.5′ N., 45°58′ W.; depth 3,566 m.; dynamic height 970.926.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	4.08	34.01	0	4.08	34.01	27.01
27	4.06	34.03	25	4.05	34.03	27.03
52	2.48	34.12	50	2.55	34.11	27.24
79	2.71	34.28	75	2.65	34.25	27.34
104	2.98	34.37	100	2.90	34.36	27.41
157	3.30	34.56	150	3.25	34.53	27.50
210	4.38	34.78	200	4.25	34.76	27.59
314	3.92	34.80	300	4.00	34.80	27.65
418	3.43	34.77	400	3.50	34.77	27.68
630	3.67	34.84	600	3.65	34.83	27.70
846	3.57	34.845	800	3.60	34.84	27.72
1,059	3.51	34.86	1,000	3.55	34.85	27.73
1,595	3.37	34.87				

Station 6486; 9 May; 45°18.5′ N., 46°44′ W.; depth 3,219 m.; dynamic height 970.932.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	3.86	33.88	0	3.86	33.88	26.92
25	3.82	33.88	25	3.82	33.88	26.93
50	3.12	34.05	50	3.12	34.05	27.14
75	4.10	34.25	75	4.10	34.25	27.20
100	4.96	34.52	100	4.96	34.52	27.32
150	3.79	34.51	150	3.79	34.51	27.44
200	3.96	34.67	200	3.96	34.67	27.55
300	4.52	34.87	300	4.52	34.87	27.65
405	4.43	34.92	400	4.45	34.92	27.70
610	3.87	34.88	600	3.90	34.88	27.72
818	3.50	34.86	800	3.50	34.86	27.75
1,026	3.44	34.86	1,000	3.45	34.86	27.75
1,549	3.38	34.88				

Station 6487; 9 May; 45°24′ N., 47°24′ W.; depth 2,561 m.; dynamic height 970.929.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	4.37	33.92	0	4.37	33.92	26.91
24	4.36	33.93	25	4.35	33.93	26.91
49	3.72	34.00	50	3.70	34.03	27.06
73	2.93	34.25	75	2.95	34.28	27.33
98	3.58	34.46	100	3.60	34.47	27.43
147	4.04	34.63	150	4.05	34.63	27.50
196	4.03	34.70	200	4.00	34.70	27.57
294	3.36	34.72	300	3.40	34.72	27.65
357	3.40	34.76	400	3.55	34.79	27.68
541	3.97	34.89	600	3.85	34.88	27.72
729	3.60	34.85	800	3.55	34.85	27.73
918	3.48	34.85	1,000	3.45	34.85	27.74
1,400	3.37	34.87				

Station 6488; 9 May; 45°34.5′ N., 47°38′ W.; depth 1,600 m.; dynamic height 970.935.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.96	33.70	0	2.96	33.70	26.87
27	3.26	33.96	25	3.25	33.94	27.03
53	3.48	34.15	50	3.45	34.13	27.16
80	3.21	34.22	75	3.25	34.21	27.25
106	3.14	34.29	100	3.15	34.27	27.31
160	3.52	34.50	150	3.45	34.47	27.44
214	3.79	34.66	200	3.75	34.62	27.53
320	4.20	34.85	300	4.15	34.83	27.65
416	3.97	34.845	400	4.00	34.85	27.69
626	3.68	34.86	600	3.70	34.86	27.73
838	3.51	34.84	800	3.55	34.84	27.72
1,049	3.46	34.85	1,000	3.45	34.85	27.74
1,580	3.36	34.865				

Station 6489; 9 May; 45°44.5′ N., 47°58′ W.; depth 622 m.; dynamic height 971.008.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	0.03	32.97	0	0.03	32.97	26.49
26	−0.71	33.00	25	−0.70	33.00	26.55
52	−0.55	33.36	50	−0.60	33.31	26.78
78	0.64	33.86	75	0.60	33.80	27.12
104	0.83	33.97	100	0.80	33.95	27.23
155	1.15	34.06	150	1.10	34.05	27.30
208	1.44	34.22	200	1.40	34.20	27.40
312	2.51	34.54	300	2.40	34.51	27.57
416	2.97	34.66	400	2.95	34.65	27.63
596	2.97	-------	(600)	3.00	34.68	27.65

Station 6490; 9 May; 45°51′ N., 48°09′ W.; depth 169 m.; dynamic height 971.027.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	0.22	33.00	0	0.22	33.00	26.51
25	−0.54	33.09	25	−0.54	33.09	26.60
51	−1.10	33.31	50	−1.10	33.30	26.79
76	−0.32	33.59	75	−0.35	33.59	27.00
101	−0.18	33.64	100	−0.20	33.64	27.04
152	−0.16	33.64	150	−0.15	33.64	27.04

Station 6491; 9 May; 45°54′ N., 48°15′ W.; depth 115 m.; dynamic height 971.036.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	0.16	32.94	0	0.16	32.94	26.46
25	−0.76	32.98	25	−0.76	32.98	26.53
50	−1.23	33.17	50	−1.23	33.17	26.70
76	−1.09	33.39	75	−1.10	33.38	26.86
101	−0.50	33.54	100	−0.50	33.53	26.96

Station 6492; 9 May; 46°05′ N., 48°33′ W.; depth 91 m.; dynamic height 971.051.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	0.22	32.84	0	0.22	32.84	26.38
25	−0.84	32.90	25	−0.84	32.90	26.46
50	−0.46	33.00	50	−1.06	33.00	26.56
75	−1.12	33.09	75	−1.12	33.09	26.62

Station 6493; 9 May; 46°10.5′ N., 48°47′ W.; depth 82 m.; dynamic height 971.052.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	0.86	32.85	0	0.86	32.85	26.36
25	−0.05	32.87	25	−0.05	32.87	26.41
50	−0.49	32.98	50	−0.49	32.98	26.52
73	−0.83	33.13	75	−0.85	33.14	26.66

Station 6494; 9 May; 46°17.5′ N., 48°59′ W.; depth 71 m.; dynamic height 971.054.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	0.73	32.90	0	0.73	32.90	26.39
25	0.21	32.90	25	0.21	32.90	26.42
49	0.01	32.92	50	0.00	32.92	26.45

Station 6495; 9 May; 46°15′ N., 48°39′ W.; depth 89 m.; dynamic height 971.049.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	0.72	32.82	0	0.72	32.82	26.33
24	0.00	32.84	25	0.00	32.84	26.39
49	−0.65	33.03	50	−0.65	33.04	26.58
73	−0.91	33.145	75	−0.90	33.15	26.68

Station 6496; 10 May; 46°13′ N., 48°10′ W.; depth 115 m.; dynamic height 971.042.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	0.11	32.96	0	0.11	32.96	26.48
25	−0.08	32.95	25	−0.08	32.95	26.48
51	−0.61	32.98	50	−0.60	32.97	26.51
76	−1.07	33.23	75	−1.05	33.21	26.73
102	−0.56	33.50	100	−0.60	33.47	26.92

Station 6497; 10 May; 46°11′ N., 47°50′ W.; depth 169 m.; dynamic height 971.040.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	−0.50	32.96	0	−0.50	32.96	26.50
24	−0.54	32.96	25	−0.55	32.96	26.50
49	−0.99	32.96	50	−1.00	32.96	26.52
73	−1.23	33.20	75	−1.20	33.21	26.73
97	−1.10	33.42	100	−1.05	33.45	26.92
146	0.40	33.83	(150)	0.50	33.86	27.18

Station 6498; 10 May; 46°09.5′ N., 47°27′ W.; depth 649 m.; dynamic height 970.962.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	0.08	33.10	0	0.08	33.10	26.59
25	0.09	33.18	25	0.09	33.18	26.65
51	−0.32	33.46	50	−0.25	33.45	26.89
76	1.01	34.08	75	0.95	34.05	27.30
102	1.58	34.24	100	1.55	34.23	27.40
152	2.26	34.48	150	2.25	34.47	27.55
202	2.56	34.56	200	2.55	34.55	27.59
304	3.03	34.66	300	3.00	34.66	27.64
336	3.08	34.695	400	3.10	34.70	27.66
541	3.15	34.72	(600)	3.15	34.72	27.67

STATIONS OCCUPIED IN 1957—Continued

Station 6499; 10 May; 46°08′ N., 47°10′ W.; depth 1,536 m.; dynamic height 970.940.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	0.88	33.12	0	0.88	33.12	26.56
23	0.91	33.16	25	0.90	33.16	26.59
46	0.74	33.84	50	0.75	33.90	27.20
69	1.12	34.10	75	1.25	34.14	27.36
93	1.55	34.22	100	1.70	34.25	27.41
138	2.54	34.48	150	2.70	34.52	27.55
184	3.00	34.61	200	3.00	34.62	27.61
277	3.12	34.68	300	3.15	34.69	27.64
373	3.32	34.73	400	3.35	34.74	27.66
587	3.41	34.785	600	3.40	34.79	27.70
801	3.58	34.84	800	3.60	34.84	27.72
1,015	3.49	34.84	1,000	3.50	34.84	27.73
1,418	3.43	34.845				

Station 6500; 10 May; 46°05′ N., 46°35′ W.; depth 521 m.; dynamic height 970.912.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	2.36	33.49	0	2.36	33.49	26.75
24	4.05	34.17	25	4.05	34.17	27.15
47	3.69	34.26	50	3.60	34.27	27.27
71	3.13	34.35	75	3.15	34.37	27.39
95	3.39	34.46	100	3.45	34.47	27.44
142	3.72	34.58	150	3.80	34.61	27.52
189	4.28	34.76	200	4.25	34.76	27.59
284	3.48	34.73	300	3.50	34.74	27.65
379	3.66	34.81	400	3.70	34.82	27.70
476	3.68	34.84				

Station 6501; 10 May; 46°03.5′ N., 45°56′ W.; depth 2,012 m.; dynamic height 970.957.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	6.31	34.40	0	6.31	34.40	27.05
21	6.29	34.39	25	6.30	34.39	27.05
49	7.63	34.69	50	7.65	34.70	27.11
73	7.90	34.86	75	7.85	34.76	27.13
98	6.55	34.71	100	6.50	34.71	27.28
146	5.99	34.78	150	5.95	34.78	27.40
195	5.48	34.81	200	5.40	34.81	27.50
293	4.62	34.82	300	4.50	34.81	27.60
360	3.55	34.74	400	3.55	34.75	27.65
546	3.62	34.82	600	3.60	34.82	27.71
736	3.52	34.825	800	3.50	34.83	27.72
929	3.46	34.835	1,000	3.45	34.84	27.73
1,432	3.43	34.86				

Station 6502; 10 May; 46°02′ N., 45°17′ W.; depth 3,200 m.; dynamic height 970.892.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	5.51	34.43	0	5.51	34.43	27.17
27	5.22	34.42	25	5.25	34.43	27.21
54	4.14	34.54	50	4.30	34.53	27.40
81	3.42	34.56	75	3.50	34.55	27.50
107	3.48	34.615	100	3.45	34.60	27.54
162	3.36	34.65	150	3.40	34.64	27.58
216	3.33	34.71	200	3.35	34.69	27.62
323	3.42	34.75	300	3.40	34.74	27.66
418	3.47	34.79	400	3.45	34.78	27.68
633	3.77	34.87	600	3.75	34.87	27.73
854	3.63	34.86	800	3.70	34.86	27.73
1,072	3.42	34.85	1,000	3.50	34.85	27.71
1,627	3.31	34.87				

Station 6503; 10 May; 46°01.5′ N., 44°36′ W.; depth 2,140 m.; dynamic height 971.119.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	12.63	35.46	0	12.63	35.46	26.85
25	12.67	35.45	25	12.67	35.455	26.83
51	12.67	35.445	50	12.70	35.445	26.82
76	12.56	35.435	75	12.55	35.43	26.83
102	10.60	35.07	100	10.70	35.08	26.91
151	11.07	35.32	150	11.05	35.31	27.02
202	10.24	35.23	200	10.30	35.23	27.09
304	6.45	34.74	300	6.55	34.76	27.31
391	6.20	34.88	400	6.15	34.88	27.46
594	4.75	34.905	600	4.70	34.91	27.66
801	4.42	34.94	800	4.40	34.94	27.71
1,006	3.99	34.91	1,000	4.00	34.91	27.74
1,529	3.52	34.88				

Station 6504; 10 May; 46°22.5′ N., 44°33′ W.; depth 1,920 m.; dynamic height 971.016.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	11.43	35.23	0	11.43	35.23	26.90
26	11.45	35.24	25	11.45	35.21	26.90
52	11.38	35.22	50	11.40	35.22	26.90
79	9.70	34.97	75	9.80	35.01	27.01
105	9.53	35.05	100	9.55	35.04	27.08
156	6.70	34.65	150	6.85	34.67	27.20
209	6.38	34.75	200	6.45	34.74	27.31
314	5.47	34.86	300	5.60	34.85	27.50
419	4.90	34.90	400	4.95	34.90	27.62
628	3.89	34.87	600	4.00	34.88	27.71
839	3.52	34.84	800	3.55	34.85	27.73
1,049	3.44	34.86	1,000	3.45	34.86	27.75
1,574	3.43	34.88				

Station 6505; 11 May; 46°32.5′ N., 44°37′ W.; depth 640 m.; dynamic height 970.905.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	4.64	34.39	0	4.64	34.39	27.25
24	4.65	34.39	25	4.65	34.39	27.25
48	4.25	34.39	50	4.25	34.39	27.29
72	4.27	34.44	75	4.25	34.44	27.33
97	3.62	34.46	100	3.60	34.47	27.43
144	3.50	34.58	150	3.45	34.59	27.53
192	3.28	34.63	200	3.30	34.64	27.59
289	3.51	34.77	300	3.55	34.78	27.67
356	3.56	34.81	400	3.60	34.81	27.70
505	3.53	34.81	(600)	3.50	34.81	27.71

Station 6506; 11 May; 46°37.5′ N., 44°39′ W.; depth 224 m.; dynamic height 970.894.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	4.08	34.34	0	4.08	34.34	27.27
25	4.08	34.34	25	4.08	34.34	27.28
49	3.46	34.41	50	3.40	34.42	27.41
74	2.90	34.47	75	2.90	34.46	27.49
98	2.86	34.47	100	2.85	34.47	27.50
147	2.90	34.53	150	2.90	34.54	27.55
196	3.16	34.62	200	3.20	34.63	27.59

Station 6507; 11 May; 46°14′ N., 44°42′ W.; depth 163 m.; dynamic height 970.893.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	3.80	34.31	0	3.80	34.31	27.28
24	3.80	34.31	25	3.80	34.31	27.28
49	2.92	34.39	50	2.90	34.40	27.44
73	2.83	34.44	75	2.85	34.45	27.48
97	2.93	34.51	100	2.95	34.52	27.53
146	2.98	34.53	150	3.00	34.53	27.53

STATIONS OCCUPIED IN 1957—Continued

Station 6508; 11 May; 46°50′ N., 44°44′ W.; depth 133 m.; dynamic height 970.899.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	3.83	34.33	0	3.83	34.33	27.29
25	3.83	34.31	25	3.83	34.31	27.28
51	3.78	34.33	50	3.80	34.33	27.29
76	2.90	34.42	75	2.90	34.42	27.46
102	2.84	34.41	100	2.85	34.42	27.46
127	2.89	34.47	150	3.00	34.53	27.53

Station 6509; 11 May; 46°50′ N., 44°57′ W.; depth 169 m.; dynamic height 970.904.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	4.05	34.33	0	4.05	34.33	27.27
25	4.05	34.34	25	4.05	34.34	27.28
50	4.05	34.33	50	4.05	34.33	27.27
75	3.29	34.35	75	3.29	34.35	27.36
100	2.94	34.38	100	2.94	34.38	27.12
150	2.91	34.47	150	2.91	34.48	27.50

Station 6510; 11 May; 46°49.5′ N., 45°16′ W.; depth 220 m.; dynamic height 970.893.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	4.23	34.37	0	4.23	34.37	27.28
25	4.21	34.38	25	4.21	34.38	27.29
50	3.20	34.44	50	3.20	34.44	27.44
75	3.01	34.44	75	3.01	34.44	27.46
100	3.18	34.50	100	3.18	34.50	27.48
149	2.93	34.54	150	2.95	34.54	27.54
199	3.15	34.63	200	3.15	34.63	27.59

Station 6511; 11 May; 46°50′ N., 45°43′ W.; depth 274 m.; dynamic height 970.896.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	3.91	34.21	0	3.91	34.21	27.19
25	3.77	34.24	25	3.77	34.24	27.23
50	2.74	34.26	50	2.74	34.26	27.34
75	2.61	34.31	75	2.61	34.31	27.39
100	2.74	34.38	100	2.74	34.38	27.43
149	3.28	34.61	150	3.30	34.61	27.57
199	3.56	34.75	200	3.55	34.75	27.65
259	3.60	34.78	300	3.60	34.79	27.68

Station 6512; 11 May; 46°50′ N., 46°07′ W.; depth 320 m.; dynamic height 970.907.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	3.02	33.97	0	3.02	33.97	27.08
25	3.04	34.02	25	3.04	34.02	27.12
50	2.76	34.19	50	2.76	34.19	27.28
75	2.55	34.27	75	2.55	34.27	27.37
100	2.46	34.33	100	2.46	34.33	27.41
150	3.19	34.57	150	3.19	34.57	27.55
201	3.55	34.69	200	3.55	34.69	27.60
301	3.60	34.81	300	3.60	34.81	27.70

Station 6513; 11 May; 46°50′ N., 46°36′ W.; depth 622 m.; dynamic height 970.914.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.30	33.62	0	2.30	33.62	26.87
24	2.15	33.72	25	2.15	33.72	26.96
49	3.00	34.25	50	3.00	34.25	27.31
73	2.93	34.33	75	2.90	34.33	27.38
99	2.90	34.36	100	2.90	34.36	27.41
147	2.42	34.46	150	2.45	34.47	27.53
196	2.92	34.61	200	2.95	34.62	27.61
295	3.21	34.71	300	3.20	34.71	27.66
392	3.55	34.80	400	3.55	34.80	27.69
596	3.55	34.835	600	3.55	34.84	27.72

Station 6514; 11 May; 46°50′ N., 46°52′ W.; depth 1,207 m.; dynamic height 970.889.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.73	33.45	0	1.73	33.45	26.78
26	1.56	33.61	25	1.55	33.60	26.91
51	1.92	34.28	50	1.90	34.26	27.41
77	2.15	34.43	75	2.15	34.42	27.52
103	2.47	34.54	100	2.45	34.53	27.57
153	2.86	34.63	150	2.85	34.63	27.62
204	3.02	34.69	200	3.00	34.69	27.66
307	3.12	34.74	300	3.10	34.74	27.69
406	3.20	34.76	400	3.20	34.76	27.70
610	3.34	34.81	600	3.35	34.81	27.72
815	3.40	34.83	800	3.40	34.83	27.73
1,022	3.42	34.85	1,000	3.45	34.85	27.74
1,190	3.38	34.86				

Station 6515; 11 May; 46°50′ N., 47°12′ W.; depth 622 m.; dynamic height 970.958.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.22	33.05	0	−0.22	33.05	26.56
25	−0.38	33.19	25	−0.38	33.19	26.68
51	0.92	33.93	50	0.90	33.92	27.21
76	1.32	34.17	75	1.35	34.17	27.38
102	1.40	34.20	100	1.40	34.20	27.40
152	1.81	34.35	150	1.75	34.34	27.48
204	2.39	34.50	200	2.35	34.49	27.55
306	2.98	34.66	300	2.95	34.65	27.63
397	3.15	34.71	400	3.15	34.71	27.66
596	3.18	34.73	600	3.20	31.74	27.68

Station 6516; 11 May; 46°50′ N., 47°20′ W.; depth 311 m.; dynamic height 971.004.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.62	32.74	0	−0.62	32.74	26.33
24	−0.87	32.96	25	−0.90	32.97	26.53
48	−1.62	33.19	50	−1.60	33.20	26.73
72	−1.37	33.31	75	−1.25	33.36	26.85
97	−0.05	33.72	100	0.05	33.75	27.12
145	1.30	34.13	150	1.40	34.18	27.38
193	2.14	34.45	200	2.20	34.47	27.56
290	2.85	34.63	(300)	2.90	34.64	27.63

Station 6517; 11 May; 46°48′ N., 47°38′ W.; depth 169 m.; dynamic height 971.035.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.28	32.93	0	−0.28	32.93	26.47
25	−0.36	32.98	25	−0.36	32.98	26.51
51	−1.35	33.06	50	−1.35	33.06	26.61
76	−1.58	33.15	75	−1.60	33.15	26.69
101	−1.45	33.26	100	−1.45	33.26	26.77
152	1.08	34.05	150	0.95	34.03	27.28

Station 6518; 12 May; 46°45′ N., 48°10′ W.; depth 110 m.; dynamic height 971.040.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	0.11	32.84	0	0.11	32.84	26.38
25	−0.48	32.89	25	−0.48	32.89	26.44
50	−1.08	32.94	50	−1.08	32.94	26.51
76	−0.99	33.27	75	−1.00	33.26	26.76
101	−0.66	33.44	100	−0.70	33.43	26.89

Station 6519; 12 May; 46°42′ N., 48°40′ W.; depth 82 m.; dynamic height 971.050.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	0.69	32.81	0	0.69	32.81	26.33
25	0.51	32.84	25	0.51	32.84	26.36
49	−0.41	32.95	50	−0.45	32.95	26.50
74	−0.84	33.07	75	−0.85	33.07	26.60

Station 6520; 49°57.5′ N., 48°58′ W.; 22 July; depth 1,920 m.; dynamic height 970.887.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	9.90	34.59	0	9.90	34.59	26.67
24	7.48	34.58	25	7.40	34.58	27.05
49	4.24	34.50	50	4.15	34.50	27.39
73	3.68	34.51	75	3.70	34.55	27.48
98	3.83	34.66	100	3.85	34.67	27.56
146	3.75	34.72	150	3.75	34.72	27.61
195	3.80	34.76	200	3.80	34.77	27.65
293	3.86	34.84	300	3.85	34.84	27.69
417	3.76	34.84	400	3.80	34.84	27.70
629	3.63	34.86	600	3.65	34.86	27.73
844	3.54	34.87	800	3.55	34.87	27.75
1,055	3.42	34.87	1,000	3.45	34.87	27.76
1,582	3.34	34.88				

Station 6521; 22 July; 49°47.5′ N., 49°30′ W.; depth 1,390 m.; dynamic height 970.912.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	7.53	33.39	0	7.53	33.39	26.10
25	2.30	34.17	25	2.30	34.17	27.31
50	2.68	34.30	50	2.68	34.30	27.37
75	2.37	34.38	75	2.37	34.38	27.46
100	3.12	34.54	100	3.12	34.54	27.53
150	3.67	34.67	150	3.67	34.67	27.58
201	3.81	34.73	200	3.80	34.73	27.61
301	4.05	34.79	300	4.05	34.79	27.63
408	4.00	34.84	400	4.00	34.84	27.68
611	3.60	34.84	600	3.65	34.84	27.71
812	3.39	34.825	800	3.40	34.83	27.73
1,004	3.33	34.84	1,000	3.35	34.84	27.74
1,331	3.34	34.87				

Station 6522; 22 July; 49°37.5′ N., 50°02′ W.; depth 622 m.; dynamic height 970.961.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	7.72	33.34	0	7.72	33.34	26.02
25	5.38	33.87	25	5.38	33.87	26.76
50	2.38	34.18	50	2.38	34.18	27.30
75	2.07	34.24	75	2.07	34.24	27.38
101	1.95	34.28	100	1.95	34.28	27.42
150	3.00	34.51	150	3.01	34.51	27.52
200	3.74	34.67	200	3.74	34.67	27.57
301	3.98	34.75	300	4.00	34.75	27.61
389	4.05	34.80	400	4.05	34.80	27.64
589	3.98	34.81	600	4.00	34.81	27.66

Station 6523; 22 July; 49°29′ N., 50°31′ W.; depth 334 m.; dynamic height 970.964.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	8.84	33.22	0	8.84	33.22	25.77
25	2.16	33.62	25	2.16	33.62	26.88
50	−0.29	33.80	50	−0.29	33.80	27.17
74	0.47	34.01	75	0.50	34.01	27.30
100	0.87	34.14	100	0.85	34.14	27.38
149	1.82	34.35	150	1.85	34.36	27.49
199	2.53	34.50	200	2.55	34.50	27.55
299	3.09	-------	(300)	3.10	34.69	27.65

Station 6524; 22 July; 49°17′ N., 51°01′ W.; depth 338 m.; dynamic height 970.980.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	9.20	33.16	0	9.20	33.16	25.67
25	2.54	33.55	25	2.54	33.55	26.79
50	0.36	33.76	50	0.36	33.76	27.11
74	0.39	33.94	75	0.40	33.94	27.25
100	0.30	34.04	100	0.30	34.04	27.33
149	1.29	34.24	150	1.30	34.24	27.43
199	1.96	34.40	200	2.00	34.40	27.51
299	2.90	34.605	300	2.90	34.61	27.61

Station 6525; 22 July; 49°11′ N., 51°36′ W.; depth 320 m.; dynamic height 971.043.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	9.16	31.94	0	9.16	31.94	24.72
25	1.27	33.25	25	1.27	33.25	26.64
50	0.64	33.42	50	0.64	33.42	26.82
75	−0.94	33.49	75	−0.94	33.49	26.95
101	−0.94	33.65	100	−0.95	33.65	27.08
151	−0.35	33.88	150	−0.40	33.87	27.24
202	0.23	34.01	200	0.20	34.00	27.31
303	2.37	34.49	300	2.30	34.47	27.55

Station 6526; 23 July; 49°04.5′ N., 51°54′ W.; depth 302 m.; dynamic height 971.048.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	8.85	31.92	0	8.85	31.92	24.76
25	1.26	33.18	25	1.26	33.18	26.59
50	0.26	33.31	50	0.26	33.31	26.75
76	0.08	33.44	75	0.10	33.44	26.87
101	−1.01	33.54	100	−1.00	33.54	26.99
151	−0.52	33.82	150	−0.55	33.81	27.19
201	0.48	34.05	200	0.40	34.04	27.33
277	2.33	34.49	(300)	2.75	34.62	27.63

Station 6527; 23 July; 49°00.5′ N., 52°07′ W.; depth 293 m.; dynamic height 971.065.

Observed values: Depth, meters	Temperature, °C.	Salinity, °/oo	Scaled values: Depth, meters	Temperature, °C.	Salinity, °/oo	σt
0	8.78	31.66	0	8.78	31.66	24.57
24	1.21	33.00	25	1.15	33.03	26.48
47	0.34	33.20	50	0.20	33.21	26.68
71	−0.90	33.28	75	−0.90	33.30	26.79
94	−0.77	33.43	100	−0.80	33.46	26.92
142	−0.83	33.68	150	−0.80	33.72	27.13
189	−0.26	33.92	200	0.00	33.98	27.30
260	1.99	34.40	300	2.95	34.63	27.61

STATIONS OCCUPIED IN 1957—Continued

Station 6528; 23 July; 48°54′ N., 52°22′ W.; depth 359 m.; dynamic height 971.065.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	6.49	31.69	0	6.49	31.69	24.90
24	2.94	33.10	25	2.80	33.11	26.42
48	0.35	33.24	50	0.35	33.25	26.70
72	0.50	33.38	75	0.50	33.39	26.80
96	−0.59	33.45	100	−0.60	33.47	26.92
143	−0.81	33.70	150	−0.80	33.74	27.14
191	0.23	33.96	200	0.40	34.01	27.31
287	2.08	34.43	(300)	2.25	34.48	27.55

Station 6529; 23 July; 48°47′ N., 52°39′ W.; depth 220 m.; dynamic height 971.188.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	7.72	30.58	0	7.72	30.58	23.87
23	−1.19	32.63	25	−1.25	32.66	26.29
46	−1.54	32.78	50	−1.55	32.79	26.40
69	−1.60	32.85	75	−1.60	32.87	26.47
93	−1.60	32.92	100	−1.60	32.93	26.51
139	−1.60	33.00	150	−1.55	33.04	26.60
185	−1.28	33.20	(200)	−1.10	33.26	26.76

Station 6530; 23 July; 48°45.5′ N., 52°48′ W.; depth 132 m.; dynamic height 971.192.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	7.91	30.45	0	7.91	30.45	23.75
26	−0.92	32.58	25	−0.75	32.50	26.14
52	−1.59	32.78	50	−1.60	32.77	26.39
79	−1.60	32.88	75	−1.60	32.87	26.47
105	−1.62	32.96	100	−1.60	32.94	26.52

Station 6531; 23 July; 48°43.5′ N., 52°58′ W.; depth 100 m.; dynamic height 971.216.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.60	30.02	0	10.60	30.02	23.00
26	−0.33	32.17	25	−0.20	32.09	25.79
53	−1.45	32.63	50	−1.40	32.59	26.23
79	−1.59	32.80	75	−1.60	32.78	26.39
			(100)	−1.60	32.89	26.48

Station 6532; 23 July; 48°37.5′ N., 52°44′ W.; depth 279 m.; dynamic height 971.228.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	8.44	30.52	0	8.44	30.52	23.72
25	−1.27	32.68	25	−1.27	30.68	24.69
50	−1.26	32.72	50	−1.26	32.72	26.34
75	−1.55	32.85	75	−1.55	32.85	26.45
100	−1.28	32.93	100	−1.28	32.93	26.50
151	−1.53	33.03	150	−1.50	33.02	26.58
201	−1.48	33.26	200	−1.50	33.25	26.77
251	0.20	34.00	300	1.90	34.57	27.66

Station 6533; 23 July; 48°32.5′ N., 52°32′ W.; depth 220 m.; dynamic height 971.143.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	8.48	30.43	0	8.48	30.43	23.64
25	−1.09	32.66	25	−1.09	32.66	26.28
49	−1.61	32.83	50	−1.60	32.83	26.43
74	−1.59	32.97	75	−1.60	32.97	26.55
98	−1.53	33.01	100	−1.55	33.02	26.59
147	−1.08	33.26	150	−1.05	33.28	26.78
196	−0.86	33.66	200	−0.85	33.70	27.11

Station 6534; 23 July; 48°21.5′ N., 52°08′ W.; depth 192 m.; dynamic height 971.139.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.17	30.75	0	10.17	30.75	23.64
26	−1.05	32.70	25	−0.95	32.63	26.26
52	−1.63	32.90	50	−1.60	32.88	26.47
77	−1.55	33.00	75	−1.55	32.99	26.56
103	−1.40	33.06	100	−1.45	33.05	26.60
155	−1.18	33.24	150	−1.20	33.37	26.86
186	−0.84	33.58	200	−0.50	33.65	27.06

Station 6535; 23 July; 48°15′ N., 51°52′ W.; depth 192 m.; dynamic height 971.133.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	9.66	31.26	0	9.66	31.26	24.11
26	−0.08	32.72	25	0.10	32.66	26.24
52	−1.29	32.90	50	−1.20	32.88	26.46
77	−1.66	33.01	75	−1.65	33.00	26.57
103	−1.48	33.10	100	−1.50	33.08	26.63
155	−1.05	33.37	150	−1.10	33.33	26.82
186	0.52	34.045	200	1.35	34.29	27.47

Station 6536; 23 July; 48°07′ N., 51°34′ W.; depth 201 m.; dynamic height 971.131.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	11.32	30.99	0	11.32	30.99	23.62
25	−0.45	32.66	25	−0.45	32.66	26.26
51	−1.13	32.94	50	−1.10	32.94	26.50
76	−1.45	33.06	75	−1.45	33.06	26.61
102	−1.33	33.23	100	−1.35	33.21	26.74
152	−0.69	33.44	150	−0.70	33.43	26.89
188	−0.69	33.52	(200)	−0.50	33.60	27.02

Station 6537; 23 July; 47°59.5′ N., 51°15′ W.; depth 169 m.; dynamic height 971.129.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.90	31.09	0	10.90	31.09	23.78
26	−0.05	32.72	25	0.50	32.66	26.22
51	−1.40	32.90	50	−1.35	32.89	26.47
77	−1.33	33.03	75	−1.35	33.02	26.58
103	−1.41	33.14	100	−1.40	33.13	26.67
154	−0.82	33.43	150	−0.85	33.40	26.87

Station 6538; 23 July; 47°53′ N., 50°58′ W.; depth 123 m.; dynamic height 971.112.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	11.05	31.30	0	11.05	31.30	23.92
26	0.44	32.62	25	0.75	32.57	26.13
52	−1.34	33.00	50	−1.30	32.98	26.51
77	−1.32	33.13	75	−1.30	33.12	26.66
103	−1.02	33.34	100	−1.10	33.31	26.80

Station 6539; 23 July; 47°45′ N., 50°40′ W.; depth 129 m.; dynamic height 971.112.

Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.34	31.68	0	10.34	31.68	24.34
26	0.81	32.60	25	1.20	32.56	26.10
52	−1.22	32.95	50	−1.20	32.93	26.50
77	−1.26	35.14	75	−1.25	33.13	26.66
103	−0.70	33.26	100	−0.80	33.24	26.74

STATIONS OCCUPIED IN 1957—Continued

Station 6540; 23 July; 47°36′ N., 50°18′ W.; depth 159 m.; dynamic height 971.109.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.16	31.65	0	10.16	31.65	24.34
25	0.80	32.52	25	0.80	32.52	26.09
50	−1.44	32.95	50	−1.44	32.95	26.52
75	−1.08	33.15	75	−1.08	33.15	26.68
100	−0.96	33.31	100	−0.96	33.31	26.80

Station 6541; 24 July; 47°24′ N., 50°01′ W.; depth 95 m.; dynamic height 971.105.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	9.86	31.65	0	9.86	31.65	24.39
25	1.46	32.39	25	1.46	32.59	26.11
50	−0.62	32.98	50	−0.62	32.98	26.53
75	−0.93	33.20	75	−0.93	33.20	26.72

Station 6542; 24 July; 47°44′ N., 49°53′ W.; depth 115 m.; dynamic height 971.100.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.43	31.68	0	10.43	31.68	24.32
26	1.30	32.74	25	2.00	32.70	26.15
52	−1.14	33.12	50	−1.10	33.10	26.63
79	−0.69	33.37	75	−0.75	33.34	26.82
105	−0.56	33.58	100	−0.60	33.54	26.97

Station 6543; 24 July; 47°56.5′ N., 49°49′ W.; depth 169 m.; dynamic height 971.104.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	9.64	31.89	0	9.64	31.89	24.61
25	2.50	32.68	25	2.50	32.68	26.10
50	1.41	33.25	50	1.41	33.25	26.64
75	−0.98	33.23	75	−0.98	33.23	26.74
101	−1.04	33.33	100	−1.05	33.32	26.81
151	−0.23	33.72	150	−0.25	33.71	27.10

Station 6544; 24 July; 48°13′ N., 49°44′ W.; depth 220 m.; dynamic height 971.096.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.32	31.28	0	10.32	31.28	24.02
25	0.03	32.90	25	0.03	32.90	26.43
51	−1.15	33.10	50	−1.15	33.09	26.63
76	−1.33	33.22	75	−1.35	33.21	26.71
102	−1.05	33.41	100	−1.10	33.39	26.87
152	−0.30	33.80	150	−0.35	33.78	27.15
203	1.85	34.38	200	1.70	34.35	27.49

Station 6545; 24 July; 48°36.5′ N., 49°38′ W.; depth 622 m.; dynamic height 971.033.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.33	32.54	0	10.35	32.54	25.00
25	2.59	33.37	25	2.59	33.37	26.64
51	1.79	33.53	50	1.85	33.53	26.83
76	−0.02	33.76	75	0.00	33.75	27.12
102	1.10	34.02	100	1.10	34.00	27.26
152	1.17	34.20	150	1.15	34.19	27.40
204	2.24	34.41	200	2.15	34.40	27.50
306	3.58	34.66	300	3.55	34.65	27.57
392	3.59	34.69	400	3.60	34.69	27.60
583	3.26	34.68	600	3.25	34.68	27.62

Station 6546; 24 July; 48°43.5′ N., 49°34′ W.; depth 1,088 m.; dynamic height 970.991.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	9.23	32.70	0	9.23	32.70	25.31
25	0.80	33.45	25	0.80	33.45	26.83
50	−0.83	33.57	50	−0.83	33.57	27.01
75	1.11	33.93	75	1.11	33.93	27.20
99	1.12	34.00	100	1.15	34.00	27.25
149	2.44	34.36	150	2.45	34.36	27.44
199	3.26	34.58	200	3.25	34.58	27.54
298	3.96	34.75	300	3.95	34.75	27.61
386	3.83	34.74	400	3.85	34.74	27.61
583	3.95	34.80	600	3.95	34.81	27.66
783	3.56	34.84	800	3.55	34.84	27.72
977	3.39	34.85	1,000	3.40	34.85	27.75

Station 6547; 24 July; 49°08.5′ N., 49°20′ W.; depth 1,646 m.; dynamic height 970.891.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	8.85	33.73	0	8.85	33.73	26.17
24	5.72	34.59	25	5.55	34.59	27.30
48	4.10	34.57	50	4.10	34.57	27.46
72	4.42	34.69	75	4.35	34.69	27.52
95	3.87	34.68	100	3.85	34.68	27.56
143	3.75	34.72	150	3.75	34.73	27.61
191	3.89	34.76	200	3.90	34.77	27.64
286	3.79	34.81	300	3.80	34.81	27.68
405	3.76	34.83	400	3.75	34.83	27.69
608	3.48	34.83	600	3.50	34.83	27.72
811	3.27	34.825	800	3.30	34.83	27.74
1,014	3.31	34.84	1,000	3.30	34.84	27.75
1,523	3.36	34.87				

Station 6548; 24 July; 49°34′ N., 49°09′ W.; depth 1,737 m.; dynamic height 970.882.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.02	34.31	0	10.02	34.31	26.44
25	7.04	34.58	25	7.04	34.58	27.10
50	4.52	34.61	50	4.52	34.61	27.44
74	3.76	34.63	75	3.75	34.63	27.53
99	3.61	34.71	100	3.60	34.71	27.62
149	3.61	34.74	150	3.60	34.74	27.64
198	3.65	34.78	200	3.65	34.78	27.66
297	3.62	34.80	300	3.60	34.80	27.69
379	3.50	34.87	400	3.50	34.82	27.72
570	3.34	34.82	600	3.35	34.82	27.73
761	3.34	34.83	800	3.35	34.83	27.73
956	3.30	34.825	1,000	3.30	34.83	27.74
1,450	3.34	34.87				

Station 6549; 25 July; 50°01′ N., 48°58′ W.; depth 1,847 m.; dynamic height 970.893.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σ_t
0	10.04	34.42	0	10.04	34.42	26.51
25	7.26	34.60	25	7.26	34.60	27.09
50	4.57	34.58	50	4.57	34.58	27.41
75	3.70	34.54	75	3.70	34.54	27.47
100	3.56	34.61	100	3.56	34.61	27.54
150	3.81	34.74	150	3.81	34.74	27.62
200	3.89	34.78	200	3.89	34.78	27.64
300	3.78	34.81	300	3.78	34.81	27.68
404	3.63	34.83	400	3.65	34.83	27.70
609	3.47	34.84	600	3.50	34.84	27.73
814	3.35	34.83	800	3.35	34.83	27.73
1,018	3.34	34.85	1,000	3.35	34.85	27.75
1,534	3.35	34.87				

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, °/oo	Depth, meters	Temperature, °C.	Salinity, °/oo	σt
Station 6550; 26 July; 53°43.5′ N., 55°48′ W.; depth 114 m.; dynamic height 1937.727.						
0	5.91	25.53	0	5.91	25.53	20.13
25	−1.66	32.36	25	−1.66	32.36	26.05
50	−1.70	32.72	50	−1.70	32.72	26.35
76	−1.68	32.82	75	−1.70	32.82	26.43
101	−1.63	32.94	100	−1.65	32.93	26.51
Station 6551; 26 July; 53°51.5′ N., 55°32′ W.; depth 206 m.; dynamic height 1937.673.						
0	2.80	28.72	0	2.80	28.72	22.92
26	−1.20	32.34	25	−1.15	32.20	25.91
51	−1.57	32.92	50	−1.55	32.91	26.50
77	−1.29	33.14	75	−1.30	33.13	26.66
102	−1.46	33.26	100	−1.45	33.25	26.76
153	−1.36	33.40	150	−1.40	33.39	26.88
194	−0.56	33.78	(200)	−0.45	33.85	27.22
Station 6552; 26 July; 53°57′ N., 55°22′ W.; depth 169 m.; dynamic height 1937.636.						
0	2.96	30.05	0	2.96	30.05	23.97
25	−1.28	32.60	25	−1.28	32.60	26.24
51	−1.60	32.86	50	−1.60	32.86	26.46
76	−1.49	33.17	75	−1.50	33.16	26.69
102	−1.30	33.37	100	−1.35	33.36	26.85
153	−0.71	33.74	150	−0.75	33.72	27.13
Station 6553; 26 July; 54°07.5′ N., 55°02′ W.; depth 167 m.; dynamic height 1937.602.						
0	5.54	31.08	0	5.54	31.08	24.54
26	−0.21	33.05	25	−0.10	32.97	26.49
52	−1.18	33.33	50	−1.15	33.31	26.81
78	−1.29	33.50	75	−1.30	33.48	26.95
104	−1.22	33.57	100	−1.25	33.56	27.02
156	−0.59	33.81	150	−0.70	33.78	27.17
Station 6554; 26 July; 54°14.5′ N., 54°50′ W.; depth 183 m.; dynamic height 1937.604.						
0	5.25	31.33	0	5.25	31.33	24.77
25	−1.15	32.92	25	−1.15	32.92	26.49
51	−1.42	33.20	50	−1.40	33.18	26.71
76	−1.18	33.39	75	−1.20	33.38	26.87
101	−1.28	33.55	100	−1.30	33.54	27.00
152	−0.77	33.78	150	−0.85	33.77	27.17
Station 6555; 26 July; 54°29′ N., 54°24′ W.; depth 214 m.; dynamic height 1937.628.						
0	4.09	30.60	0	4.09	30.60	24.30
25	−0.79	32.45	25	−0.79	32.45	26.10
50	−1.31	33.06	50	−1.31	33.06	26.61
75	−1.28	33.32	75	−1.28	33.32	26.82
100	−1.25	33.48	100	−1.25	33.48	26.95
151	−0.92	33.68	150	−0.95	33.68	27.10
201	−0.18	33.91	200	−0.20	33.90	27.25
Station 6556; 26 July; 54°45′ N., 53°51′ W.; depth 322 m.; dynamic height 1937.614.						
0	4.72	30.36	0	4.72	30.36	24.06
25	−1.84	32.19	25	1.84	32.19	25.76
51	−0.36	33.35	50	−0.35	33.31	26.77
76	−0.16	33.64	75	−0.15	33.64	27.04
102	−0.89	33.66	100	−0.90	33.66	27.09
152	0.04	33.90	150	0.00	33.89	27.23
203	1.19	34.14	200	1.15	34.13	27.35
305	3.65	34.63	300	3.50	34.60	27.54
Station 6557; 26 July; 54°52′ N., 53°37′ W.; depth 622 m.; dynamic height 1937.545.						
0	6.46	31.24	0	6.46	31.24	24.56
25	−0.11	33.30	25	−0.11	33.30	26.75
51	−0.63	33.66	50	−0.60	33.65	27.06
77	−0.51	33.74	75	−0.55	33.73	27.12
103	−0.03	33.89	100	−0.10	33.87	27.22
153	2.03	34.29	150	1.90	34.27	27.42
204	3.13	34.50	200	3.05	34.49	27.49
307	4.24	34.74	300	4.20	34.73	27.57
402	4.31	34.81	400	4.30	34.81	27.63
602	4.13	34.84	600	4.15	34.84	27.66
Station 6558; 26 July; 54°59′ N., 53°23′ W.; depth 1,554 m.; dynamic height 1937.466.						
0	4.25	32.28	0	4.25	32.28	25.62
25	1.19	33.74	25	1.19	33.74	27.04
50	0.75	33.94	50	0.75	33.94	27.23
75	1.78	34.16	75	1.78	34.16	27.34
100	1.77	34.26	100	1.77	34.26	27.42
150	3.51	34.54	150	3.51	34.51	27.49
201	3.65	34.66	200	3.65	34.66	27.57
301	4.64	34.84	300	4.65	34.84	27.61
400	4.15	34.81	400	4.15	34.81	27.64
599	3.83	34.84	600	3.85	34.84	27.69
799	3.70	34.85	800	3.70	34.85	27.72
998	3.46	34.845	1,000	3.45	34.85	27.71
1,495	3.66	34.87	1,500	3.65	34.87	27.74
Station 6559; 26 July; 55°01.5′ N., 53°14′ W.; depth 2,149 m.; dynamic height 1937.397.						
0	6.11	32.54	0	6.11	32.54	25.63
25	2.75	34.06	25	2.75	34.06	27.18
50	1.78	34.20	50	1.78	34.20	27.37
75	2.32	34.35	75	2.32	34.35	27.45
100	3.11	34.52	100	3.11	34.52	27.51
150	3.29	34.62	150	3.29	34.62	27.58
201	3.96	34.76	200	3.95	34.76	27.62
301	4.04	34.80	300	4.05	34.80	27.64
378	4.04	34.84	400	4.00	34.84	27.68
570	3.36	34.805	600	3.35	34.81	27.72
764	3.36	34.825	800	3.40	34.84	27.74
960	3.51	34.87	1,000	3.50	34.87	27.76
1,452	3.35	34.875	1,500	3.35	34.88	27.77
1,950	3.24	34.90	(2,000)	3.25	34.90	27.80

STATIONS OCCUPIED IN 1957—Continued

Station 6560; 27 July; 55°10.5′ N., 52°52′ W.; depth 3,017 m.; dynamic height 1937.371.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.87	33.83	0	6.87	33.83	26.54
25	3.14	34.16	25	3.14	34.16	27.22
50	2.35	34.33	50	2.35	34.33	27.42
75	2.58	34.46	75	2.58	34.46	27.51
100	3.42	34.63	100	3.42	34.63	27.57
150	4.16	34.77	150	4.16	34.77	27.61
199	3.89	34.77	200	3.90	34.77	27.64
299	3.94	34.81	300	3.95	34.81	27.66
403	3.95	34.85	400	3.95	34.85	27.69
607	3.69	34.85	600	3.70	34.85	27.72
811	3.63	34.87	800	3.60	34.87	27.75
1,017	3.49	34.87	1,000	3.50	34.87	27.76
1,528	3.35	34.88	1,500	3.35	34.88	27.77
2,039	3.11	34.90	2,000	3.15	34.90	27.81
2,492	2.67	34.895	2,500	2.65	34.89	27.85
2,911	1.81	34.88	(3,000)	1.60	34.88	27.92

Station 6561; 27 July; 55°29′ N., 52°22′ W.; depth 3,292 m.; dynamic height 1937.359.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
	7.14	34.10	0	7.14	34.10	26.71
25	5.69	34.22	25	5.69	34.22	27.00
50	3.47	34.49	50	3.47	34.49	27.45
75	3.23	34.55	75	3.23	34.55	27.52
99	3.60	34.68	100	3.60	34.68	27.59
149	3.45	34.78	150	3.45	34.73	27.64
199	3.40	34.76	200	3.40	34.76	27.68
298	3.31	34.78	300	3.30	34.78	27.70
392	3.36	34.80	400	3.40	34.80	27.71
591	3.55	34.86	600	3.55	34.86	27.74
792	3.41	34.85	800	3.40	34.85	27.75
995	3.38	34.855	1,000	3.40	34.86	27.76
1,499	3.36	34.87	1,500	3.40	34.87	27.77
2,003	3.29	34.90	2,000	3.30	34.90	27.80
2,481	2.93	34.905	2,500	2.90	34.90	27.84
2,976	2.21	34.88	3,000	2.15	34.88	27.88
3,176	1.64	34.87				

Station 6562; 27 July; 55°54′ N., 51°39′ W.; depth 3,517 m.; dynamic height 1937.369.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.21	34.49	0	8.21	34.49	26.86
25	6.92	31.47	25	6.92	34.47	27 03
50	4.30	34.64	50	4.30	34.64	27.49
75	3.68	34.68	75	3.68	34.68	27.58
100	3.56	34.74	100	3.56	34.74	27.64
150	3.35	31.76	150	3.35	34.76	27.68
201	3.21	34.765	200	3.25	31.76	27.69
301	3.30	34.795	300	3.30	34.79	27.71
402	3.21	31.79	400	3.20	34.79	27.72
607	3.14	34.80	600	3.15	34.80	27.73
814	3.18	34.82	800	3.15	34.82	27.745
1,023	3.25	34.83	1,000	3.25	34.83	27.745
1,535	3.29	34.83	1,500	3.30	34.83	27.745
2,047	3.40	34.88	2,000	3.40	34.88	27.77
2,483	3.41	31.90	2,500	3.40	34.90	27.79
2,997	2.69	34.90	3,000	2.70	34.90	27.85
3,517	1.62	34.86	3,500	1.65	34.86	27.91

Station 6563; 27 July; 56°31.5′ N., 50°38′ W.; depth 3,695 m.; dynamic height 1937.371.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.23	34.55	0	8.23	34.55	26.90
25	6.67	34.58	25	6.67	34.58	27.15
50	4.20	34.63	50	4.20	34.63	27.49
75	3.77	34.64	75	3.77	34.64	27.54
100	3.33	34.68	100	3.33	34.68	27.62
150	3.43	34.74	150	3.43	34.74	27.66
199	3.35	34.77	200	3.35	34.77	27.69
299	3.22	34.78	300	3.20	34.78	27.71
390	3.17	34.795	400	3.20	34.79	27.72
589	3.14	34.79	600	3.15	34.79	27.72
792	3.16	34.805	800	3.15	34.81	27.74
998	3.22	34.82	1,000	3.25	34.82	27.74
1,498	3.27	34.835	1,500	3.30	34.84	27.75
1,999	3.39	34.88	2,000	3.40	34.88	27.77
2,477	3.40	34.90	2,500	3.40	34.90	27.79
2,976	2.82	34.90	3,000	2.75	31.90	27.85
3,476	1.78	34.865	3,500	1.75	34.865	27.90
3,578	1.72	34.865				

Station 6564; 28 July; 57°03.5′ N., 49°32′ W.; depth 3,695 m.; dynamic height 1937.357.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.88	34.56	0	7.88	34.56	26.96
25	6.62	34.60	25	6.62	34.60	27.18
50	4.34	34.64	50	4.34	34.64	27.48
75	3.84	34.66	75	3.84	34.66	27.55
100	3.34	34.70	100	3.34	34.70	27.63
150	3.26	34.75	150	3.26	34.75	27.68
201	3.21	34.76	200	3.20	34.76	27.70
301	3.13	34.79	300	3.15	34.79	27.72
402	3.13	34.79	400	3.15	34.79	27.72
604	3.09	34.80	600	3.10	34.80	27.74
805	3.22	34.80	800	3.20	34.80	27.73
1,007	3.28	34.83	1,000	3.30	34.83	27.74
1,509	3.34	34.87	1,500	3.35	34.87	27.77
2,012	3.40	34.885	2,000	3.40	34.88	27.77
2,514	3.15	34.90	2,500	3.20	34.90	27.81
3,009	2.78	34.91	3,000	2.80	34.91	27.85
3,500	1.86	34.87	3,500	1.86	34.87	27.90
3,597	1.70	34.87				

Station 6565; 28 July; 57°36.5′ N., 48°25′ W.; depth 3,493 m.; dynamic height 1937.359.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.36	34.57	0	8.36	34.57	26.91
25	6.13	34.60	25	6.13	34.60	27.24
50	4.40	34.66	50	4.40	34.66	27.49
75	3.74	34.68	75	3.74	34.68	27.57
100	3.65	34.74	100	3.65	34.74	27.63
150	3.59	34.77	150	3.59	34.77	27.67
199	3.86	34.83	200	3.85	34.83	27.68
299	3.36	34.79	300	3.35	34.79	27.70
500	3.31	34.81	400	3.35	34.80	27.71
698	3.21	34.82	600	3.25	34.82	27.74
898	3.20	34.82	800	3.20	34.82	27.745
1,097	3.27	34.835	1,000	3.25	34.83	27.745
1,596	3.34	34.86	1,500	3.35	34.86	27.76
1,992	3.38	34.89	2,000	3.40	34.89	27.78
2,473	3.05	34.905	2,500	3.05	34.90	27.82
2,946	2.61	34.90	3,000	2.55	34.90	27.87
3,320	1.80	34.87				

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1957—Continued

Station 6566; 28 July; 58°09.5′ N., 47°13′ W.; depth 3,200 m.; dynamic height 1937.355.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, °/oo	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, °/oo	σ_t
0	8.91	34.58	0	8.91	34.58	26.83
25	6.16	34.60	25	6.16	34.60	27.24
50	4.47	34.68	50	4.47	34.68	27.50
75	4.22	34.70	75	4.22	34.70	27.54
100	4.04	34.74	100	4.04	34.74	27.59
150	3.97	34.80	150	3.97	34.80	27.65
200	4.20	34.86	200	4.20	34.86	27.68
300	3.91	34.865	300	3.91	34.865	27.71
397	3.61	34.84	400	3.60	34.84	27.72
601	3.42	34.84	600	3.40	34.84	27.74
805	3.16	34.81	800	3.15	34.81	27.74
1,015	3.28	34.835	1,000	3.30	34.83	27.74
1,518	3.31	34.86	1,500	3.30	34.86	27.77
2,019	3.24	34.89	2,000	3.25	34.89	27.79
2,486	2.87	34.91	2,500	2.85	34.91	27.85
2,966	2.02	34.875	3,000	1.90	34.87	27.90
3,087	1.56	34.85				

Station 6567; 28 July; 58°40.5′ N., 46°10′ W.; depth 2,579 m.; dynamic height 1937.350.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, °/oo	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, °/oo	σ_t
0	7.82	34.61	0	7.82	34.61	27.01
25	5.43	34.62	25	5.43	34.62	27.34
50	4.96	34.70	50	4.96	34.70	27.46
75	4.55	34.77	75	4.55	34.77	27.56
100	4.35	34.74	100	4.35	34.74	27.56
150	4.05	34.81	150	4.05	34.81	27.65
199	4.07	-------	200	4.05	34.83	27.66
299	4.00	34.86	300	4.00	34.86	27.70
402	3.64	34.83	400	3.65	34.83	27.70
602	3.48	34.83	600	3.45	34.83	27.72
802	3.41	34.845	800	3.40	34.84	27.74
1,000	3.40	34.855	1,000	3.40	34.86	27.76
1,502	3.34	34.885	1,500	3.35	34.88	27.77
2,005	3.01	34.90	2,000	3.05	34.90	27.82
2,521	2.10	34.85	2,500	2.15	34.85	27.86

Station 6568; 29 July; 58°58.5′ N., 45°26′ W.; depth 2,469 m.; dynamic height 1937.339.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, °/oo	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, °/oo	σ_t
0	8.05	34.70	0	8.05	34.70	27.05
25	6.73	34.65	25	6.73	34.65	27.20
50	5.31	34.72	50	5.31	34.72	27.44
75	4.87	34.85	75	4.87	34.85	27.59
100	4.68	34.87	100	4.68	34.87	27.63
150	4.47	34.88	150	4.47	34.88	27.66
199	4.28	34.875	200	4.25	34.87	27.68
299	3.90	34.85	300	3.90	34.85	27.70
402	3.80	34.85	400	3.80	34.85	27.70
604	3.40	34.83	600	3.40	34.83	27.73
806	3.37	34.84	800	3.35	34.84	27.74
1,008	3.45	34.865	1,000	3.45	34.86	27.75
1,508	3.28	34.885	1,500	3.30	34.88	27.78
2,003	2.88	34.895	2,000	2.90	34.89	27.83
2,417	1.91	34.87				

Station 6569; 29 July; 59°11.5′ N., 44°57′ W.; depth 2,103 m.; dynamic height 1937.382.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, °/oo	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, °/oo	σ_t
0	8.25	34.71	0	8.25	34.71	27.03
25	7.80	34.75	25	7.80	34.75	27.13
50	7.68	34.76	50	7.66	34.76	27.15
75	7.06	34.80	75	7.06	34.80	27.27
100	5.59	34.83	100	5.59	34.83	27.49
150	5.17	34.90	150	5.17	34.90	27.60
200	4.99	34.93	200	4.99	34.93	27.64
300	4.69	34.92	300	4.69	34.92	27.67
401	4.42	------	400	4.45	34.90	27.68
602	3.83	34.87	600	3.85	34.87	27.72
804	3.70	34.88	800	3.70	34.88	27.74
1,006	3.53	34.88	1,000	3.55	34.88	27.75
1,508	3.32	34.88	1,500	3.35	34.88	27.77
2,009	2.60	34.86	2,000	2.60	34.86	27.83

Station 6570; 29 July; 59°25′ N., 44°29′ W.; depth 1,079 m.; dynamic height 1937.498.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, °/oo	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, °/oo	σ_t
0	2.63	31.65	0	2.63	31.65	25.27
25	5.44	34.27	25	5.44	34.27	27.07
50	6.96	34.75	50	6.96	34.75	27.24
75	7.11	34.85	75	7.11	34.85	27.31
100	6.92	34.92	100	6.92	34.92	27.39
150	6.29	34.98	150	6.29	34.98	27.52
200	6.05	34.99	200	6.05	34.99	27.56
300	5.98	35.00	300	5.98	35.00	27.57
392	5.26	34.935	400	5.25	34.93	27.61
600	4.87	34.92	600	4.85	34.92	27.65
816	4.66	34.90	800	4.70	34.90	27.65
1,006	4.26	34.885	1,000	4.25	34.89	27.69

Station 6571; 29 July; 59°34.5′ N., 44°14′ W.; depth 172 m.; dynamic height 1937.702.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, °/oo	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, °/oo	σ_t
0	0.22	29.25	0	0.22	29.25	23.49
25	−0.02	32.35	25	−0.02	32.35	26.00
49	−0.72	32.88	50	−0.75	32.89	26.45
74	−0.84	33.18	75	−0.85	33.19	26.70
98	0.23	33.44	100	0.05	33.49	26.91
147	5.99	34.49	(150)	6.25	34.56	27.19

Station 6572; 29 July; 59°41′ N., 43°58′ W.; depth 148 m.; dynamic height 1937.756.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, °/oo	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, °/oo	σ_t
0	1.22	29.20	0	1.22	29.20	23.41
24	0.28	31.04	25	0.20	31.09	24.97
47	−0.76	32.30	50	−0.85	32.47	26.12
71	−1.06	32.90	75	−1.05	32.94	26.51
95	−1.06	33.05	100	−1.00	33.08	26.61
128	−0.09	33.38	(150)	0.90	33.71	27.04

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U. S. TREASURY DEPARTMENT
COAST GUARD

Bulletin No. 44

INTERNATIONAL ICE OBSERVATION AND ICE PATROL SERVICE

IN THE

NORTH ATLANTIC OCEAN

R. P. DINSMORE
R. M. MORSE
FLOYD M. SOULE

CG–188–13

Season of 1958

UNITED STATES
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U.S. TREASURY DEPARTMENT - - - COAST GUARD

BULLETIN No. 44

INTERNATIONAL ICE OBSERVATION AND ICE PATROL SERVICE IN THE NORTH ATLANTIC OCEAN - [SEASON of 1958]

UNITED STATES COAST GUARD

19 October 1959.

ADDRESS REPLY TO:
COMMANDANT
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Transmitted herewith is Bulletin No. 44, International Ice Observation and Ice Patrol Service in the North Atlantic Ocean, Season of 1958.

A. C. Richmond,
Vice Admiral, U. S. Coast Guard,
Commandant.

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B: e (5); b c (2); d g l m (1)
C: a b (1)
D: h (10); c e (1)
E: d (35)
List 133

ABSTRACT

The authority for, mission, forces assigned and method of operation of the International Ice Patrol during the 1958 ice season are described.

Aerial ice observation and communications statistics are presented.

All ice reports made to the International Ice Patrol in 1958 are tabulated. A general month-by-month description of ice conditions and sea surface temperatures in the Grand Banks of Newfoundland area are given. A summary of ice conditions in the Gulf of St. Lawrence and Strait of Belle Isle is included, as is a summary of the post-war opening dates of these seaways.

The most outstanding feature of the 1958 ice season was that only one iceberg drifted south of the 48th parallel, thus constituting one of the lightest ice years in the history of the International Ice Patrol. This berg was reported on 18 July 1958 in 46°48′N, 47°46′W. The duration and maximum extension of the pack ice in the Labrador and Newfoundland areas were extremely subnormal.

The three dynamic topographic charts resulting from the season's current surveys and the dynamic topography found at the Bonavista triangle during the postseason cruise are discussed with respect to surface circulation.

The abnormal amount of onshore winds along the Labrador coast during the first 3 months of 1958 resulted in an alteration of the usual thermo-haline structure of the Labrador Current; the minimum observed temperature was about a degree warmer than usual, but extended to abnormal depth; the warm water found was not as warm as usual, but was of abnormal geographic extent; and the salinities at intermediate depths were fresher than usual.

Temperature-salinity relationships of the Labrador Current water, Atlantic Current water and mixed water found in the Grand Banks region during 1958, are compared with mean T-S curves for the 11-year period 1948–58. Lighter than average water was found in 1958 at each level of each water mass.

Labrador Current departures from average temperature and salinity are noted, as well as their approximate contributions to the departures from average density.

An extra-southerly extension of a section southward from the Grand Banks was made, completely crossing the Atlantic Current, and is discussed with reference to volume and heat transports and compared with 1938 and 1950 occupations of similar sections. It is suggested that previously accepted values for average transport of the Atlantic Current in this area may be too small.

A detailed analysis of the circulation in the upper 1,000 meters is made on the basis of volume and heat transports and mean and minimum observed temperatures at 19 selected sections across the Labrador Current occupied during 1958. Tentative seasonal normals of these characteristics, and the 1958 departures therefrom, are tabulated.

The exceptionally vigorous circulation on both the Labrador and Greenland sides of the Labrador Sea in 1958 is noted. The heat transport of the Labrador Current off the Labrador coast was found to be almost twice the normal value, due to above average mean temperature as well as increased volume transport.

The temperature and salinity of the intermediate and deep waters of the Labrador Sea in 1958 are examined and compared with averages for previous years. Net volume transports above the 200-decibar level are computed and each is found to be a approximately one million^3/sec., and both are in a northwesterly direction. The significance of these figures is further discussed.

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FOREWORD

This is bulletion No. 44 in the series of annual reports on the International Ice Observation and Ice Patrol Service.

Authors of the section of this bulletin dealing with oceanography were Oceanographer Floyd M. Soule and Lt. R. M. Morse. The remainder was written by Lt.Comdr. R. P. Dinsmore.

INTERNATIONAL ICE PATROL 1958

In accordance with the terms of the International Convention on Safety of Life at Sea, London, 1948, the International Ice Patrol was again conducted in 1958 by the United States Coast Guard and was the 39th such patrol carried out by this organization.

The patrol operated from 15 March to 16 June and marked one of the lightest ice years in the records of the International Ice Patrol. This is in marked contrast to the 1957 season which was one of the heaviest. For the fourth consecutive year, Capt. Kenneth S. Davis, United States Coast Guard, was assigned the duties of Commander, International Ice Patrol. The operating forces assigned to Captain Davis' command were the U.S. Coast Guard Air Detachment, Argentia, Newfoundland, (Comdr. Charles E. Sharp, USCG) ; U.S. Coast Guard Radio Station NIK, Argentia, Nfld., U.S. Coast Guard Cutter *Evergreen*, oceanographic vessel, (Lt. Comdr. Sumner R. Dolber, USCG) and the standby patrol vessels USCGC *Acushnet* (Lt. Comdr. Harold F. Lynch, USCG) and USCGC *Tamaroa* (Lt. Comdr. Henry E. Steel, USCG).

Primary ice observation for the season was conducted by aircraft. As usual, reports from merchant and Government vessels provided an indispensable means of collecting data. Additional valuable ice information was furnished by the Canadian Ice Information Office at Halifax, the Canadian National Telegraphs at St. John's and the United States Navy Long Range Ice Reconnaissance Unit at Argentia, Newfoundland.

The office of Commander, International Ice Patrol was moved to the United States Naval Station at Argentia, Newfoundland on 11 March and the patrol was formally inaugurated on 14 March with two ice observation flights that date and the first ice advisory broadcast by Radio Station NIK that night. The ice situation that date showed extremely light conditions. There were no icebergs south of latitude 52° N, and the Arctic pack in its seasonal southward movement only had arrived at Belle Isle, far behind the average date.

Subnormal ice conditions remained prevalent throughout the season and at no time were the major transatlantic shipping lanes endangered by ice. Almost all Newfoundland ports either remained ice free or opened earlier than at any time in history. Residents of Newfoundland enjoyed a particularly warm winter and many described it as the mildest of their recollection. Cabot Strait and the main body of the Gulf of St. Lawrence remained ice free throughout the year.

The first icebergs to make an appearance off Newfoundland remained inside the pack ice as it moved down the coast during the latter part of March. These bergs grounded, for the most part, in the Funk Island—Cape Freels area and none drifted south of Cape Bonavista. This became a pattern which persisted until June when, for the first time this season, a group of bergs was detected offshore and directly in the Labrador Current. However, abnormally high sea surface temperatures and a poorly developed current prevented any of these bergs from achieving a significant drift and the southernmost intrusion was to latitude 46°50′N. reached by one berg on 18 July. This was the one and only berg-sized piece of glacial ice which drifted across the 48th parallel this year, although one growler was sighted south of this line and several more growlers undoubtedly did drift across.

Thus the parameter by which the International Ice Patrol measures the severity of an iceberg year, i.e., the number of icebergs which drift south of latitude 48 N., is, for 1958 one berg. For the Grand Banks area, this constitutes one of the lightest ice years in history and is in marked contrast to the 57-year average of 400 bergs. 1958 can be compared to the years of 1940, 1941, and 1951 which were the only previous ones where less than 10 bergs were reported.

The absence of ice over the Grand Banks precluded the necessity of a surface patrol and the cutters assigned for this duty remained on 72-hour standby while in continuance of regular duties at home districts. However, during the period 16 May to 27 May, fog enshrouded the area east of St. John's, Newfoundland, and the many stationary radar targets reported by both aircraft and ships indicated a possibility that bergs might be drifting into Track "F" which was then in wide use by Canadian bound vessels. Accordingly, the standby patrol vessel *USCGC Acushnet,* at Portland, Maine, was ordered to make ready for sea and proceed to the area for patrol duties. Fortunately, however, the 28th of May broke fine and clear and aerial observation that day revealed no ice threat existed and the radar targets were identified as ships, primarily fishing vessels. The *Acushnet* was directed to resume 72-hour standby without having gotten underway.

During the season, the oceanographic vessel *USCGC Evergreen* made three surveys to map the ocean currents within the areas of consideration. A postseason survey cruise was conducted off Newfoundland and across the Labrador Sea from Labrador to Greenland. Details of these cruises together with results of the oceanographic work are presented in the second part of this bulletin.

By the second week in June, all southward drifting bergs were deteriorating and melting between the 48th and 49th parallels and the pack ice edge had retreated well up the Labrador coast. It was therefore deemed that no further major ice menace existed over the Grand Banks area, and with the concurrence and authority of the Commandant, United States Coast Guard, the International Ice Patrol was formally terminated on 16 June 1958.

At the request of Commander, International Ice Patrol the U.S. Coast Guard Air Detachment, based at Argentia, Newfoundland, made periodic postseason ice reconnaissance flights to guard against an unseasonal southward movement of ice.

AERIAL ICE RECONNAISSANCE

This year was the 13th that aircraft have been employed for ice observation by the International Ice Patrol. Aircraft were first used during World War II years in the conduct of ice information operations under the United States and Allied Atlantic Fleets. The marked success and aircraft development indicated that aircraft would be a valuable asset with the resumption of the International Ice Patrol in 1946.

1958 marked the last year that the familiar PBIG (B–17) "Flying Fortresses" was the primary observation type. Three of these aircraft were available through the U.S. Coast Guard Air Detachment, permanently based at Argentia, Newfoundland. Since 1946 these fine aeroplanes have flown over 985,612 nautical miles on 761 Ice Patrol missions. They have also flown many preseason and postseason reconnaissance flights to guard against an undetected ice menace. During their period of service there has only been one mishap and that without personnel injury. In May of 1952 while making a landing at Goose Bay, Labrador, one landing wheel collapsed damaging the underbody of the plane. Rather than undertake repairs at so advanced a base, the parts and engines were salvaged and the airframe was abandoned.

An Ice Patrol flight is usually between 1,100 and 1,200 miles long and the track is laid out carefully in advance so that a maximum area can be searched for the miles flown. An ice observation officer from the staff of Commander, International Ice Patrol accompanies every flight. Precise piloting and navigation is demanded so that the intended search area is actually covered. Search altitudes are usually between 500 and 1,500 feet and every effort is made to stay beneath the overcast and provide the observer with maximum visibility. While flights are usually made in good or fair weather, the prevalence of fog in spring months occasionally requires that a flight be made in marginal or poor visibility where the aircraft must seek out its targets by radar and then descend to near the surface to gain visual identification of either ship or berg.

During the 1958 season three PBIG (B–17) aircraft were utilized for 30 ice observation flights. Aircraft statistics for the season are given by the following table:

Table 1.—Aerial Ice Observation Statistics for the 1958 Season

Month	Number of flights	Number of days on which flights made	Number days good observing weather [1]	Average visual effectiveness [2]	Maximum number of days between flights	Miles flown	Hours flown
				Percent			
March (14–31)	7	6	6	82	4	7,195	49.8
April	10	10	7	72	7	9,527	63.8
May	9	8	4	44	7	8,380	54.3
June (1–10)	4	4	4	91	7	4,900	29.8
Total	30	28	21	72.5	....	30,002	197.7

[1] Days on which possible to search visually at least 50% of scouting area with 25-mile spacing between legs of flight plan.

[2] Ratio (× 100) of area actually searched visually to area of search pattern.

COMMUNICATIONS

With the inauguration of Ice Patrol services on 14 March, the International Ice Patrol Radio Station (NIK) commenced its services of collecting and broadcasting of ice information. The first of regularly scheduled advisories was at 0048 GMT on 15 March. Thereafter, broadcasts were made twice daily at 0048 and 1248 GMT on frequencies 155, 5320 and 8502 kilocycles. All broadcasts were CW signal with an emission power of 2 kilowatts.

A general call to ships on 500 kilocycles preceded each advisory bulletin with instructions to shift to the broadcast frequencies. A one-minute period of test signals transmitted on those frequencies was sent to facilitate receiver tuning. Bulletins were transmitted twice; once at 15 words per minute and repeated at 25 words per minute.

Each broadcast concluded with the request that all ships in the patrol area report to NIK all ice sighted and sea temperatures and weather conditions every 4 hours. The importance of such reports cannot be overemphasized. A major portion of all ice information collected by the Ice Patrol comes from ships, and the isotherm charts (figs. 13–18) produced from ships' reports are an essential instrument for analyzing and predicting iceberg drift and deterioration. Aerial observation flights are planned on the strength of ships' weather reports and a general weather map is kept current. The tracks of all reporting ships are plotted as they cross the area. It should be reassuring to a master to know that his ship's position is checked constantly and he will receive any reports of ice sighted on his track ahead.

Merchant ships worked traffic with NIK on 425, 454, 468 or 480 kcs. or their assigned 8 mc. band. NIK transmitted on 466 or 8650 kcs.

International Ice Patrol also operated a branch teletype station from the Naval teletype relay at Argentia. This circuit was used for the transmission and receipt of ice information between the United States Naval Hydrographic Office, the Canadian Department of Transport Ice Information Office at Halifax, U.S. Coast Guard Headquarters and other interested agencies.

During the 1958 season Ice Patrol communications facilities handled a total of 7,847 radio messages and 8,875 landline dispatches. The statistics concerning ship reports is given by the following table:

Number of ice reports received from vessels	245
Number of vessels furnishing ice reports	46
Number of sea surface temperatures reported	5,998
Number of vessels furnishing sea surface temperatures	408
Number of requests for special ice information	84
Total number of vessels worked (not including relays)	428

The percentage distribution of reporting vessels by nationality was as follows:

Nationality	*Percent of total*	*Nationality*	*Percent of total*
Great Britain	28.5	Netherlands	4.4
United States	22.5	Liberia	3.9
Germany	11.0	Italy	3.2
Norway	6.3	France	2.9
Sweden	6.1	Others (18 nations)	11.2

GULF OF ST. LAWRENCE AND STRAIT OF BELLE ISLE

The annual Ice Reconnaissance and Advisory Service of the Gulf of St. Lawrence was conducted again this year by the Canadian Department of Transport. The program was under the supervision of Capt. E. L. Kelso, Canadian Ice Information Officer.

The service consisted of 11 flights over the main body of the Gulf of St. Lawrence between 14 March and 28 April, and four flights over the Strait of Belle Isle area between 21 May and 4 June.

For the first time ice forecasting was employed and the services of the Canadian Navy Ice Forecasting Central at HMCS *Shearwater*, Dartmouth, Nova Scotia, were provided to the Department of Transport. Lt. Comdr. W. E. Markham, RCNR, was the Meteorological Officer-in-Charge of this program.

The results of the ice observation flights were sent to the Commander, International Ice Patrol and daily forecasts were provided by the Ice Forecasting Central. This information proved of immense value in providing Canadian bound ships with pertinent information.

Ice conditions were extremely favorable in the Gulf of St. Lawrence during 1958. The main body of the gulf and Cabot Strait remained ice free throughout the season. The ports of Sydney, Port aux Basques, Cornerbrook and Stephenville and many others remained open all year. By the early part of March the river began to open and was navigable to Quebec City. On 30 March the German vessel SS *Valeria* became the first ship to make the spring passage to Montreal. This is a record date for this occasion.

Northumberland Strait and the coasts of Prince Edward Island and New Brunswick were hampered by ice until the middle of April due to pressure from prevailing northeast winds.

The northeast arm of the Gulf of St. Lawrence and the Strait of Belle Isle became blocked with ice during March from the Arctic pack. These ice conditions are shown in figs. 1–5. Due to the onslaught of northeast winds in March and early April, this region felt moderate to heavy pack ice reaching its greatest extent when, on 1 April, it approximated a line from Cape Whittle, Quebec, to Portland Cove, Newfoundland, roughly along the 50th parallel.

An unusual and most interesting iceberg drift occurred during April when, on the 10th, a berg was reported south of Heath Point, Anticosti Island. A Department of Transport survey flight located this berg (or large growler) on 14 April and again on 17 April to be 30 miles south of Heath Point and directly in the main stream track. Capt. Angus Brown, Chief Ice Observer, reported it to be of "hard blue ice" and of glacial origin. This agrees with International Ice Patrol observations that bergs with a bluish cast are particularly hard and long lived. Since other bergs were reported aground near Cape Whittle, Quebec, and Cornerbrook, Newfoundland, it is presumed that this extremely rare event was a survivor from the many bergs driven into the Strait of Belle Isle during March under the influence of the previously mentioned northeast winds.

Unseasonable warming and southerly winds rapidly cleared the field ice so that by 25 April the Strait of Belle Isle was free of pack ice. However, the eastern approaches remained blocked. The first transit of the strait by a major vessel was made by the

USCGC Eastwind, eastbound, on 11 May. This vessel was, however, an icebreaker type and drove through deteriorating pack ice from Belle Isle to longitude 54° W. The first commercial transits were made by the SS *Louisa Gorthon,* westbound, on 20 May and the SS *Manchester Mariner,* eastbound, on 24 May. A particularly notable passage was by the transatlantic liner SS *Empress of Britain,* westbound, on 28 May.

The mariner should always be aware that the opening of the Strait of Belle Isle does not preclude the possibility of encountering icebergs and growlers. On the contrary, icebergs and their deteriorating fragments are usually present on Canadian Seasonable Track "G," between longitudes 51° W. and 57° W. and often in great numbers from the date of opening until autumn. Occasional bergs may be found in this region throughout the year.

The following table brings up to date this series of bulletins' records of the annual opening dates of the St. Lawrence River and the Strait of Belle Isle:

The Approximate Opening Dates for the Gulf of St. Lawrence and the Strait of Belle Isle for the Years 1946–53

Year	Gulf of St. Lawrence	Strait of Belle Isle	Year	Gulf of St. Lawrence	Strait of Belle Isle
1945	8 April	1 June	1952	16 May	3 July
1946	24 April	1 June	1953	15 April	11 May
1947	26 April	15 May	1954	22 April	22 June
1948	21 May	7 June	1955	16 April	12 June
1949	28 April	20 June	1956	4 April	16 May
1950	16 May	9 June	1957	15 May	15 July
1951	30 April	2 May	1958	30 March	15 May

ICE CONDITIONS 1958

January–February

The Grand Banks and the Newfoundland area was free of ice at the start of the year and the most southerly ice reported during this period were occasional bergs sighted along the Labrador Coast and in the Strait of Belle Isle. Newfoundland ports remained, for the most part, ice free with only loose strings of local ice in bays and estuaries. The Strait of Belle Isle and the main body of the Gulf of St. Lawrence were open and navigable throughout January and February.

Between February 10th and 20th the *USCGC Half Moon* and then *USCGC Barataria* occupying Ocean Station *Bravo* at 56°30′N. 51°00′W. sighted and tracked three icebergs to melting. The sighting of bergs at this station in the middle of the Labrador Sea is a rare occurrence, the last known time being March–April 1952. Such an event invariably raises the question whether or not the bergs drifted from the Labrador or Greenland side. The results of the tracking this year showed a definite drift to the southwest regardless of wind direction. This favors the hypothesis that these bergs drifted from the Greenland side. Such was also the conclusion of the 1952 analysis (see p. 48, Bulletin No. 38, 1952). Under the influence of prevailing northeasterly winds for an extended period, such an event is not improbable.

March

Conditions during the early part of March remained the same as in January and February, but on 14 March, aerial observation showed the Arctic pack beginning to encroach upon the Strait of Belle Isle and its eastern approaches. The Belle Isle Radio on this date also reported the arrival of the pack with many bergs inside the ice edge. Prevailing northeast winds during February and March had kept the field ice and bergs close along the coast and is a suggested reason for their late appearance.

The pack ice and its vanguard of bergs quickly filled up the Strait of Belle Isle and moved down the Newfoundland Coast. The consolidated pack and the bergs remained, on the whole, west of longitude 54° W. By the end of the month the northeast coast of Newfoundland was icebound but since no bergs or sea ice moved eastward into the axis of the Labrador Current, the southeast coast of Newfoundland and the Grand Banks enjoyed a near record ice-free month. Ice conditions during March are shown by figs. 1–3.

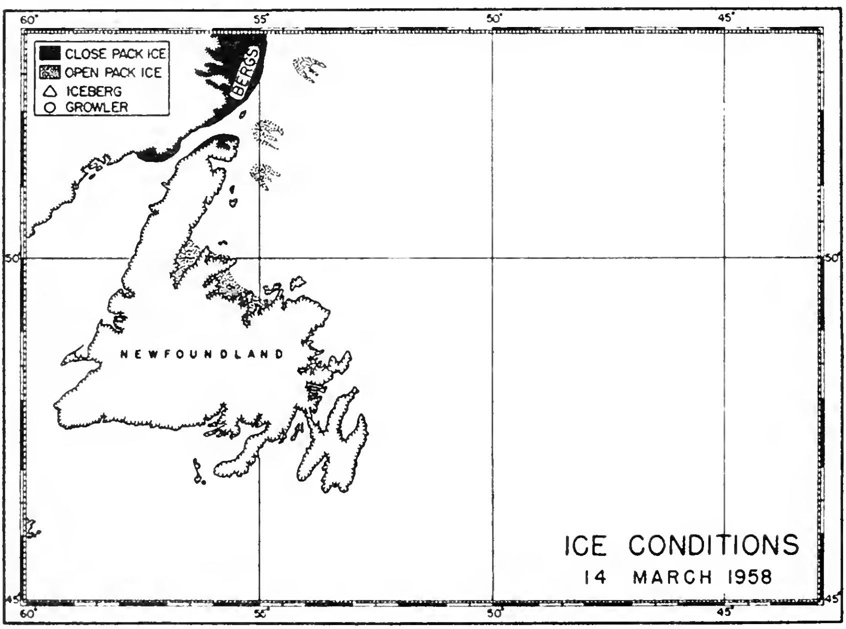

FIGURE 1.—Ice conditions on 14 March 1958.

April

During April, the northeast winds relaxed and ice began to move around Cape Freels on the Newfoundland east coast. However, the larger bergs grounded between Funk Island and Cape

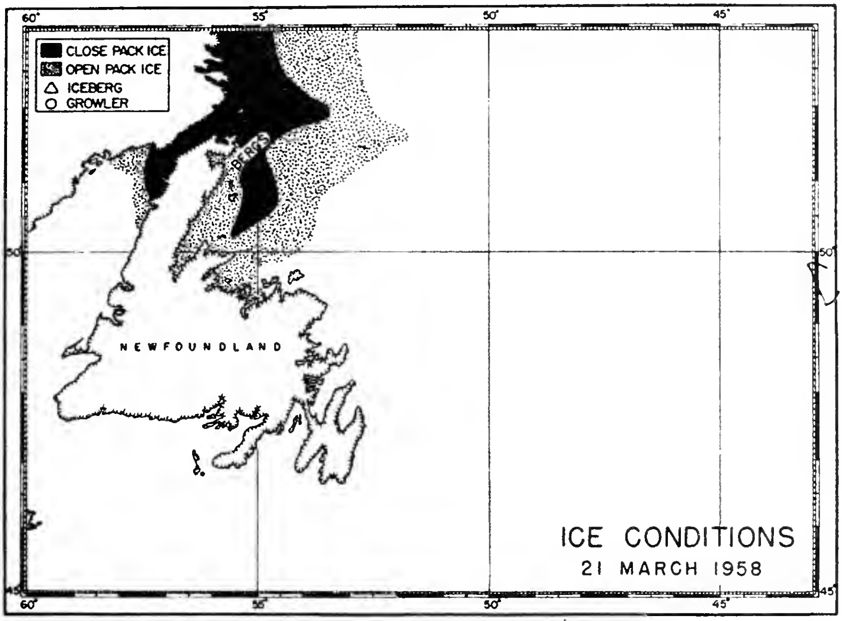

FIGURE 2.—Ice conditions on 21 March 1958.

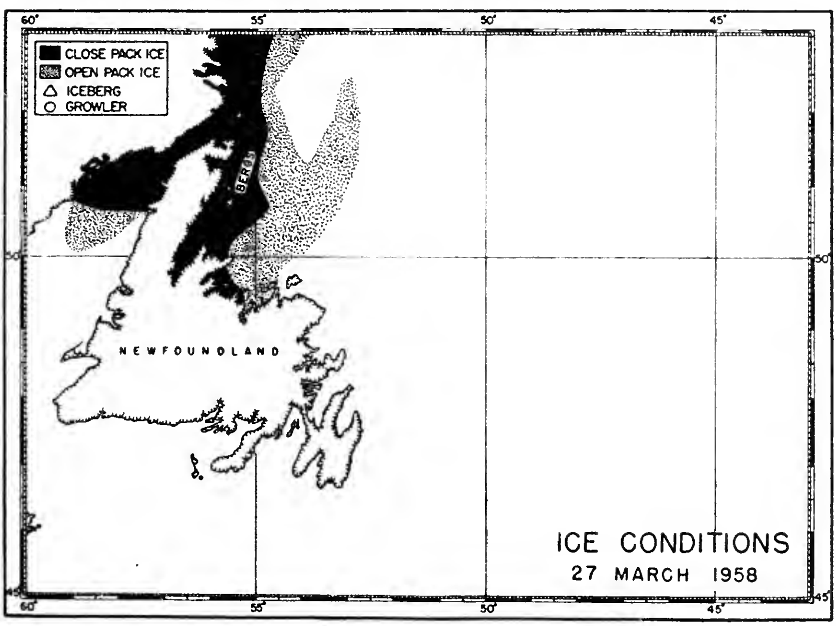

FIGURE 3.—Ice conditions on 27 March 1958.

Bonavista and unseasonably warm sea surface temperatures (see figs. 13–18) destroyed any pack ice or growlers which achieved a southeast drift below latitude 49° N.

Southerly winds the latter part of April opened up large shore leads along northeast Newfoundland and coastwise shipping was able to navigate for the remainder of the year. Pack ice was driven out of the Strait of Belle Isle and by the end of the month the strait was free though the eastern approaches remained blocked.

The main body of the Gulf of St. Lawrence was open throughout the month and the steamer track to Montreal was in use. Only Northumberland Strait and the coast of Prince Edward Island remained hampered by ice, pressured as a result of earlier northeast winds. As previously mentioned, small bergs were sighted aground near Cornerbrook, Newfoundland, and Cape Whittle, Quebec, in the Gulf, and a small berg or growler drifted past Heath Point, Anticosti Island into the main steamer track. The latter is a most unusual occurrence.

Again, from 2–7 April, the cutter on Ocean Station *Bravo* sighted and tracked to its melting, a medium sized berg which had a steady average drift of about 10 miles per day to the west. Another berg, the fourth for the year, was sighted at this station (56°30′N. 51°00′W) on 23 April, but bad weather prohibited tracking it.

The southernmost extension of field ice for the entire season occurred on 29 April when a north-south belt of broken block ice was sighted off Baccalieu Island, Newfoundland, (see fig. 6). The main pack, however, had already begun to deteriorate and at the end of the month was in rapid disintegration.

Ice conditions for April are shown by figures. 4–6.

May

The early part of May marked a pronounced recession of the field ice limits from the Newfoundland area, so that by 20 May only small patches of brash and block ice remained south of the 52d parallel. Canadian Seasonal Track "G" was now open and in use. Many bergs and growlers were reported in the Strait of Belle Isle and its eastern approaches.

Southerly and southwesterly winds prevailed during April and May which had the effect of driving many small bergs and growlers to the eastward of the Newfoundland coast (see fig. 8) but due to their already eroded state and the advanced seasonal warming of the surface water, none achieved any significant drift. This same effect of easterly movement apparently had taken place also off the Labrador Coast. At the end of May ships now using Track

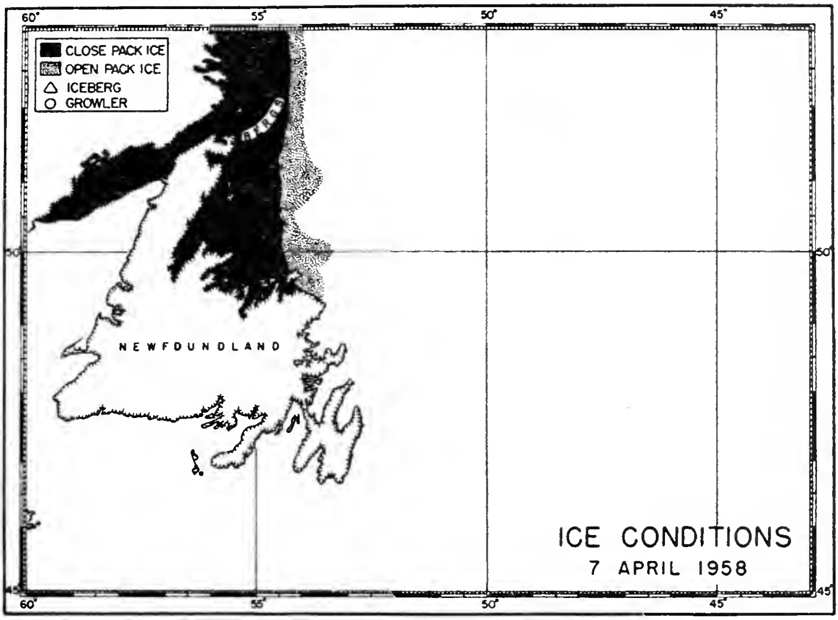

FIGURE 4.—Ice conditions on 7 April 1958.

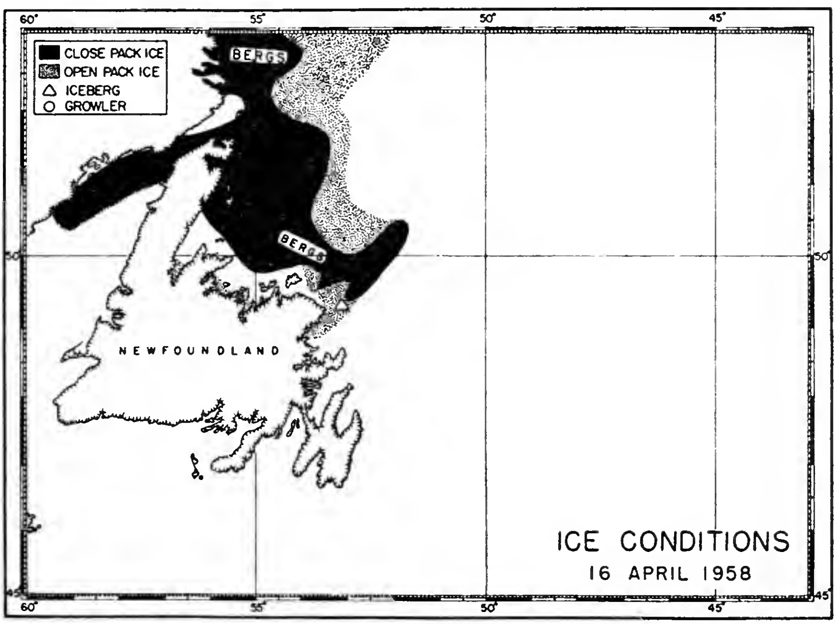

FIGURE 5.—Ice conditions on 16 April 1958.

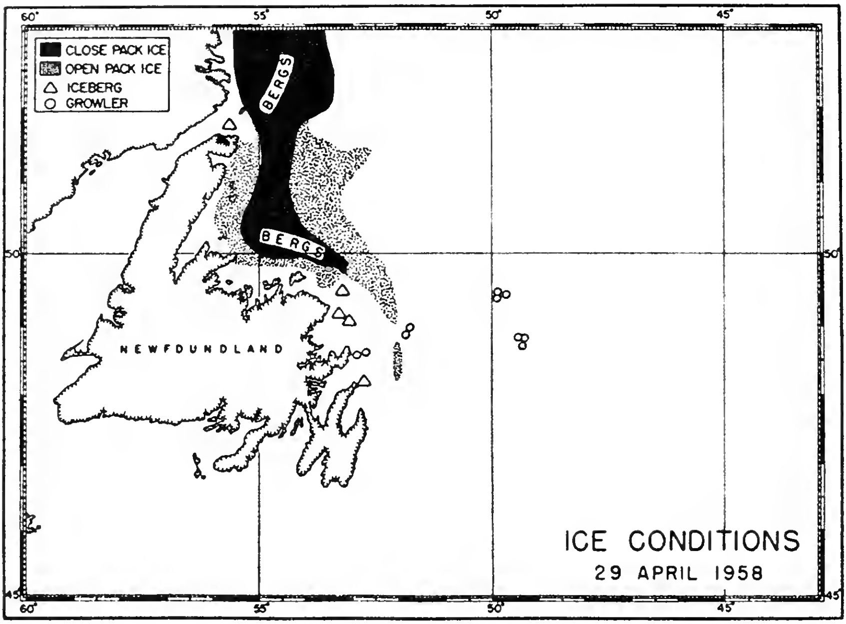

FIGURE 6.—Ice conditions on 29 April 1958.

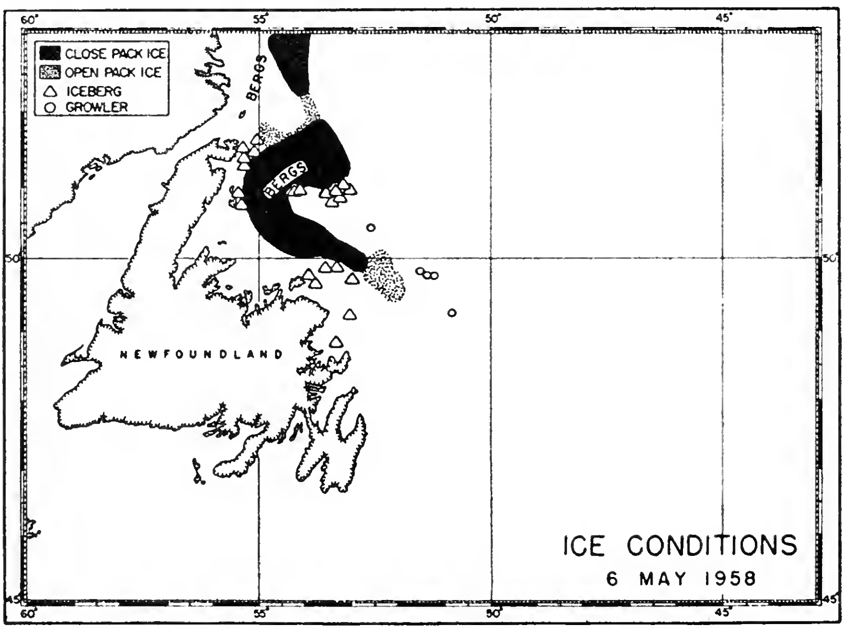

FIGURE 7.—Ice conditions on 6 May 1958.

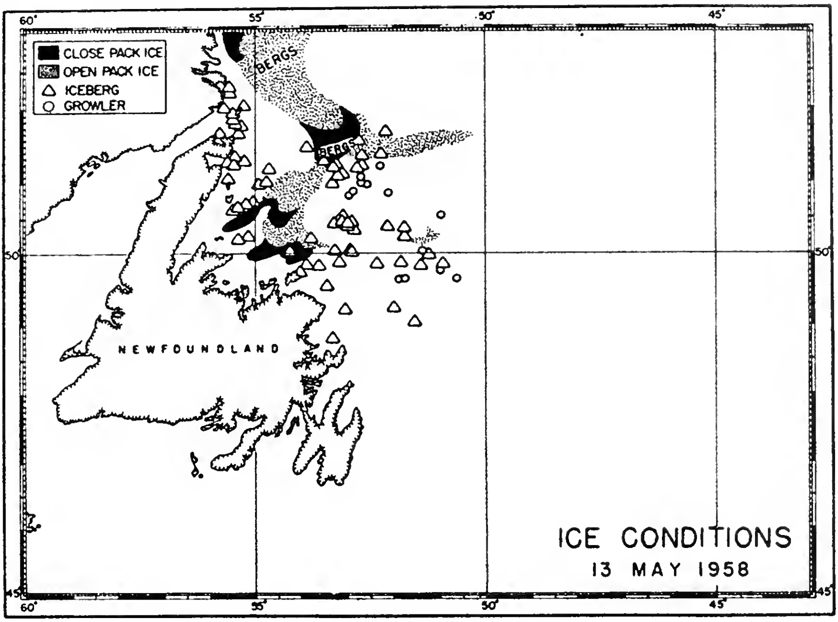

FIGURE 8.—Ice conditions on 13 May 1958.

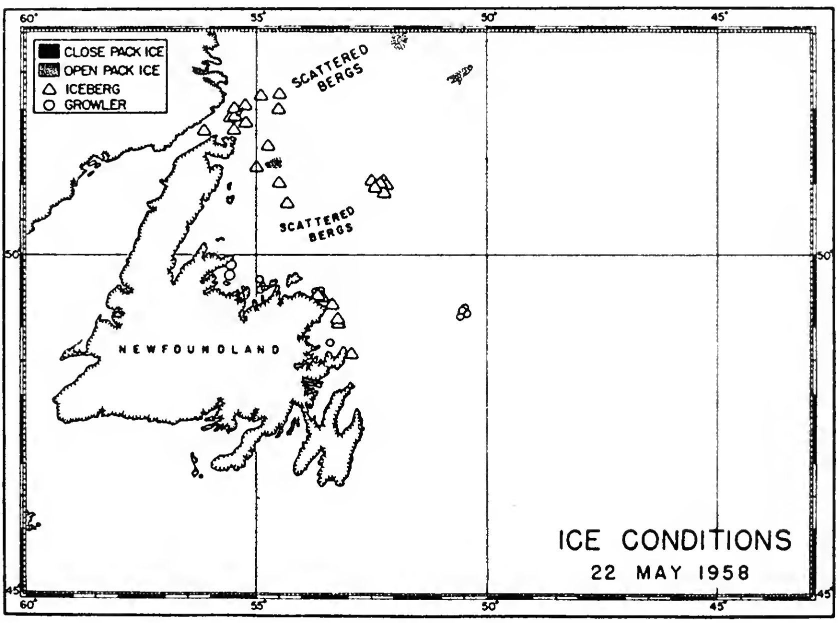

FIGURE 9.—Ice conditions on 22 May 1958.

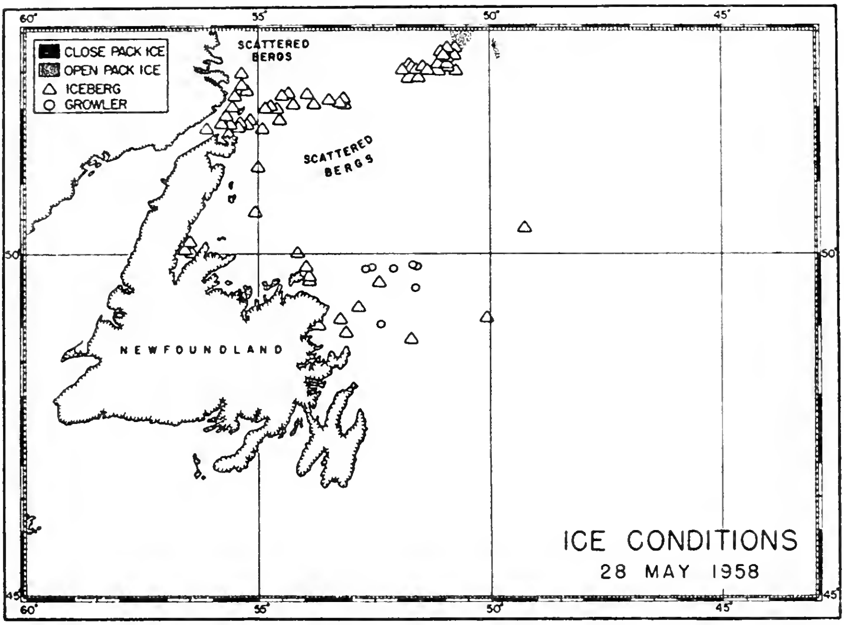

FIGURE 10.—Ice conditions on 28 May 1958.

"G" reported many large bergs between longitudes 50° W. and 52° W. on the track (Belle Isle). This situation can be noted on fig. 10.

June

The warming surface water during June assured the destruction of all the bergs present along the coastal reaches of Newfoundland and precluded the possibility that the bergs drifting southward along the thousand-fathom isobath would present any menace to the major tracks. The southern terminus of these bergs at their melting was between 49° and 50° north latitude. The berg reported on 20 June by the SS *Chris* at 47°48′N. 48°24′W. (Report No. 433) had been previously sighted as a growler and aircraft dispatched to the area on 21 June found only fragments of brash ice. Thus the report is not fully credited as a berg.

Many bergs, however, were still reported throughout the month north of latitude 50° and extending outward from the Newfoundland and Labrador coasts for a distance of about 200 nautical miles.

Ice conditions during June south of the 49th parallel are shown by fig. 11.

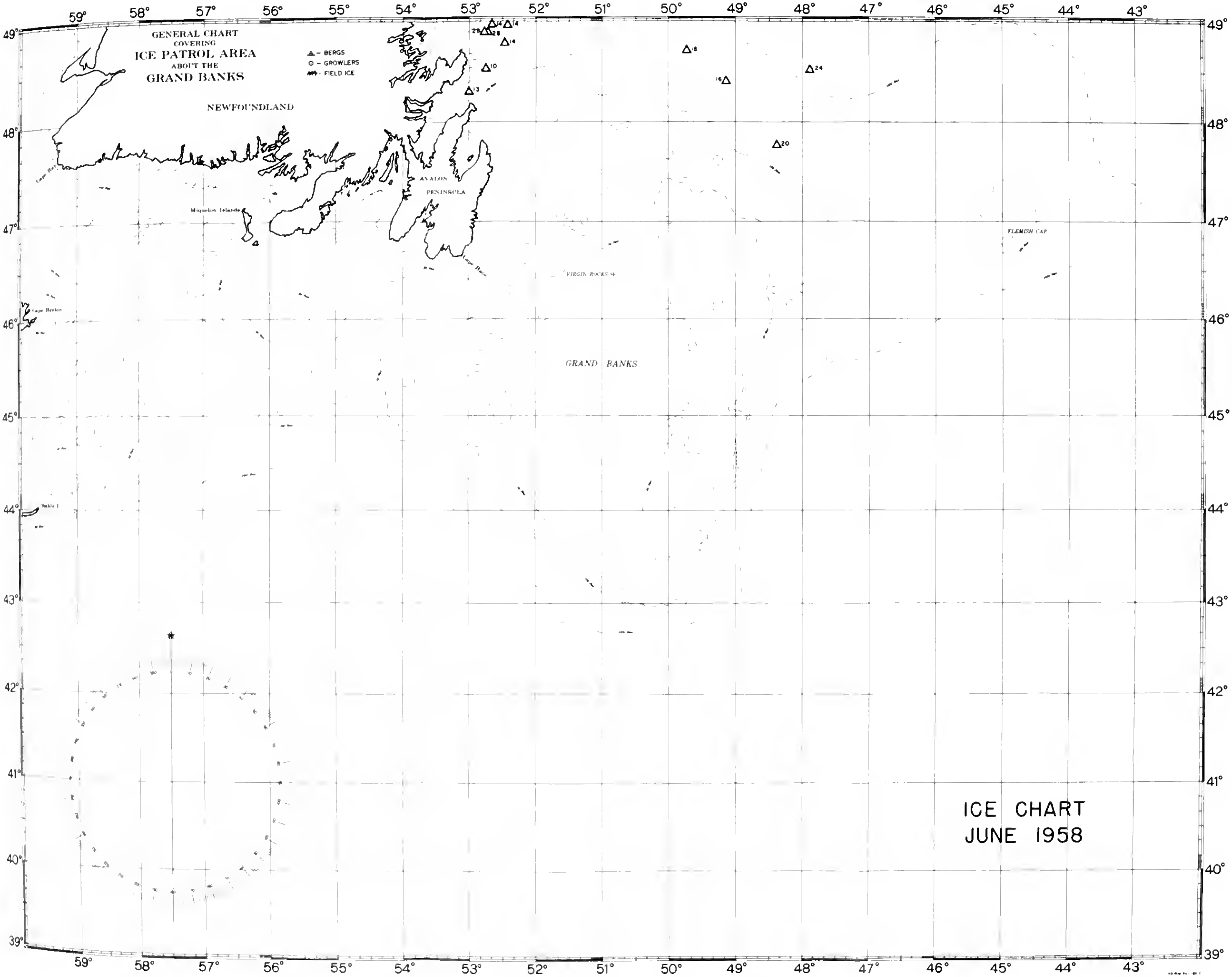

FIGURE 11.—Ice conditions, June 1958. Figures indicate day of month ice was sighted or reported.

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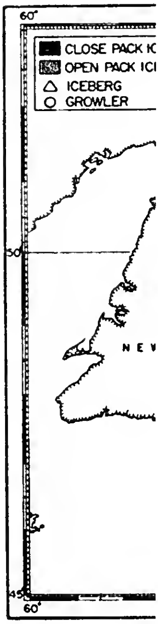

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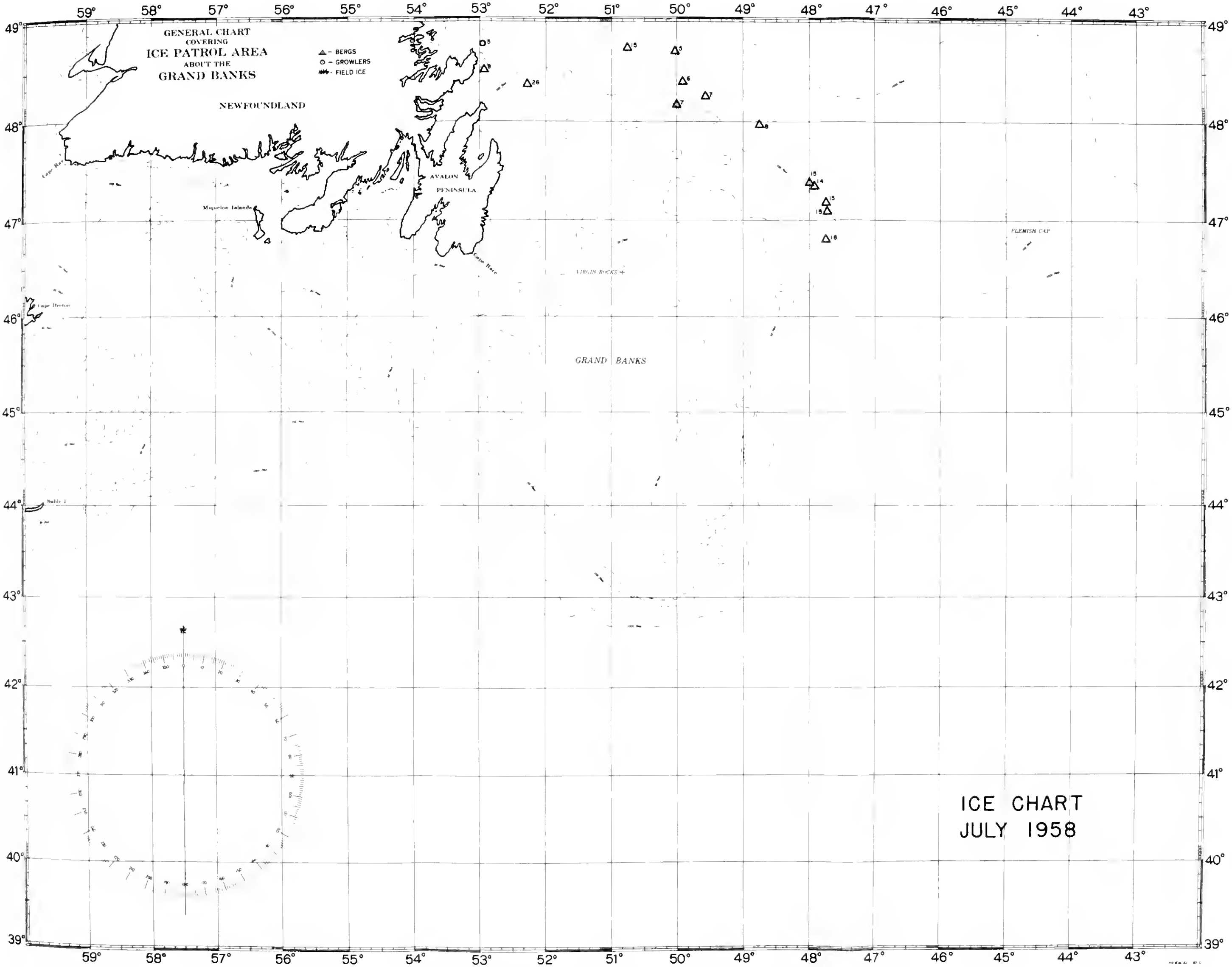

FIGURE 12.—Ice conditions, July 1958. Figures indicate day of month ice was sighted or reported.

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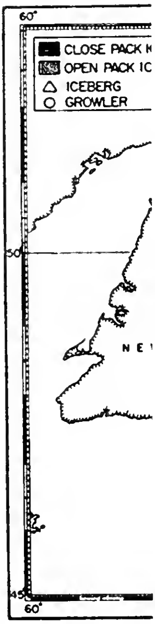

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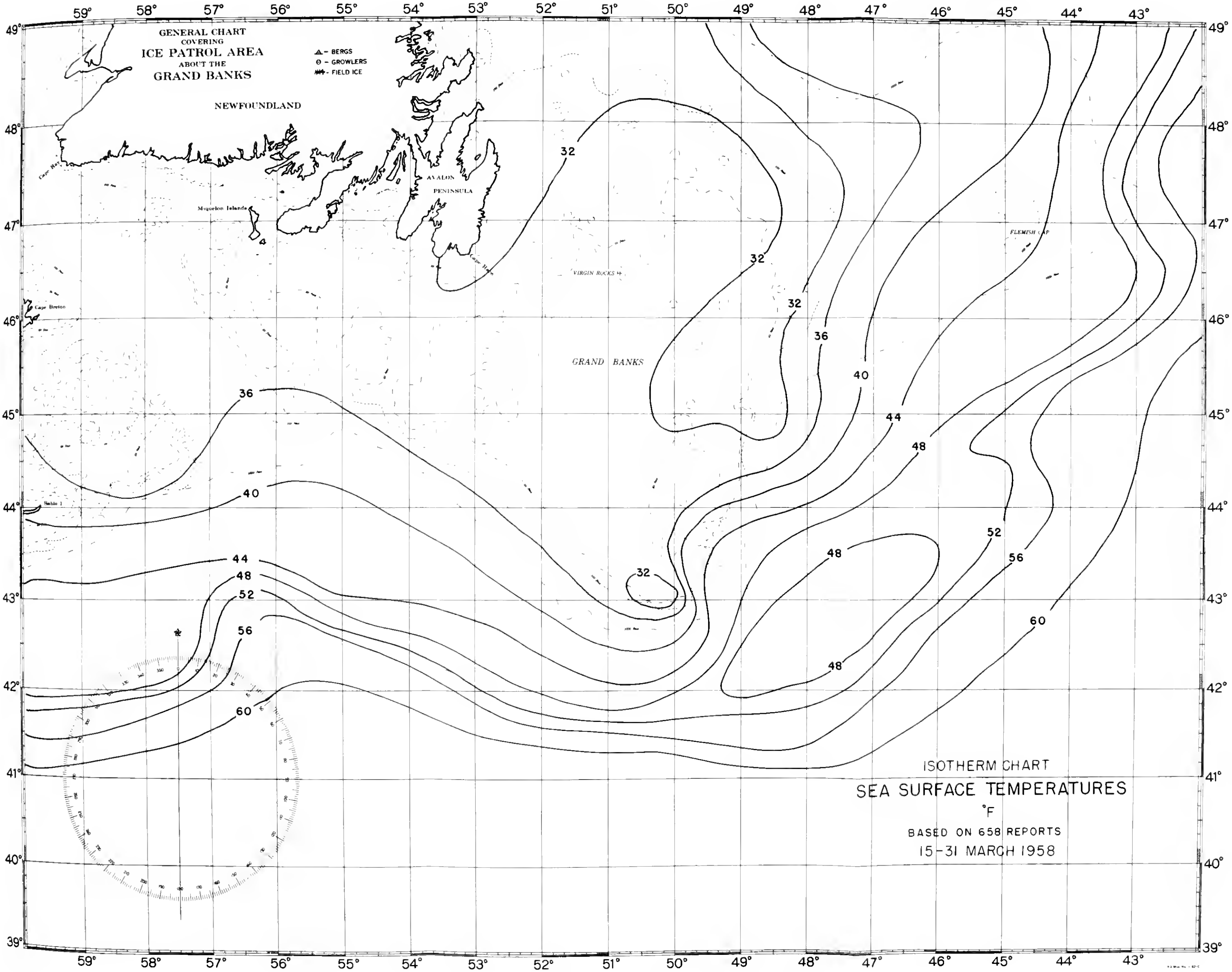

FIGURE 13.—Surface Isotherms for the period 15-31 March 1958.

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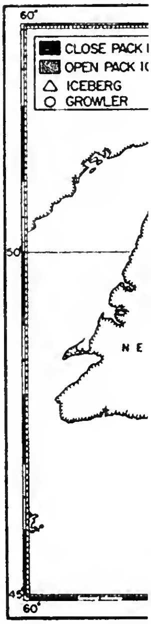

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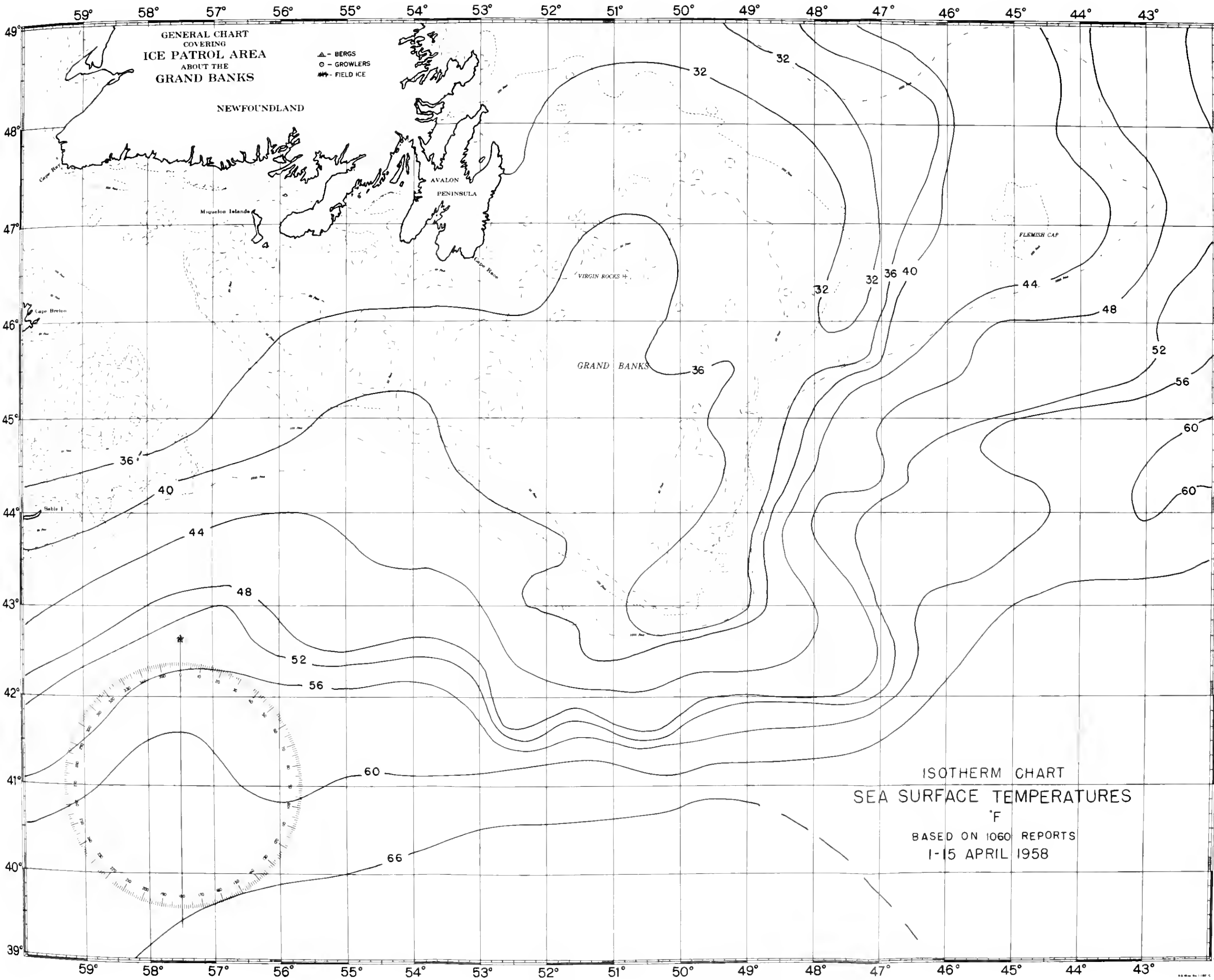
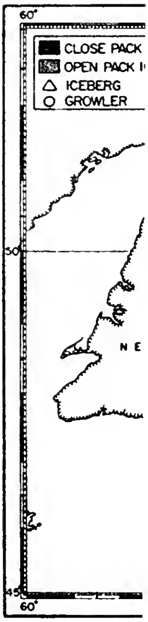


FIGURE 14.—Surface Isotherms for the period 1–15 April 1958.



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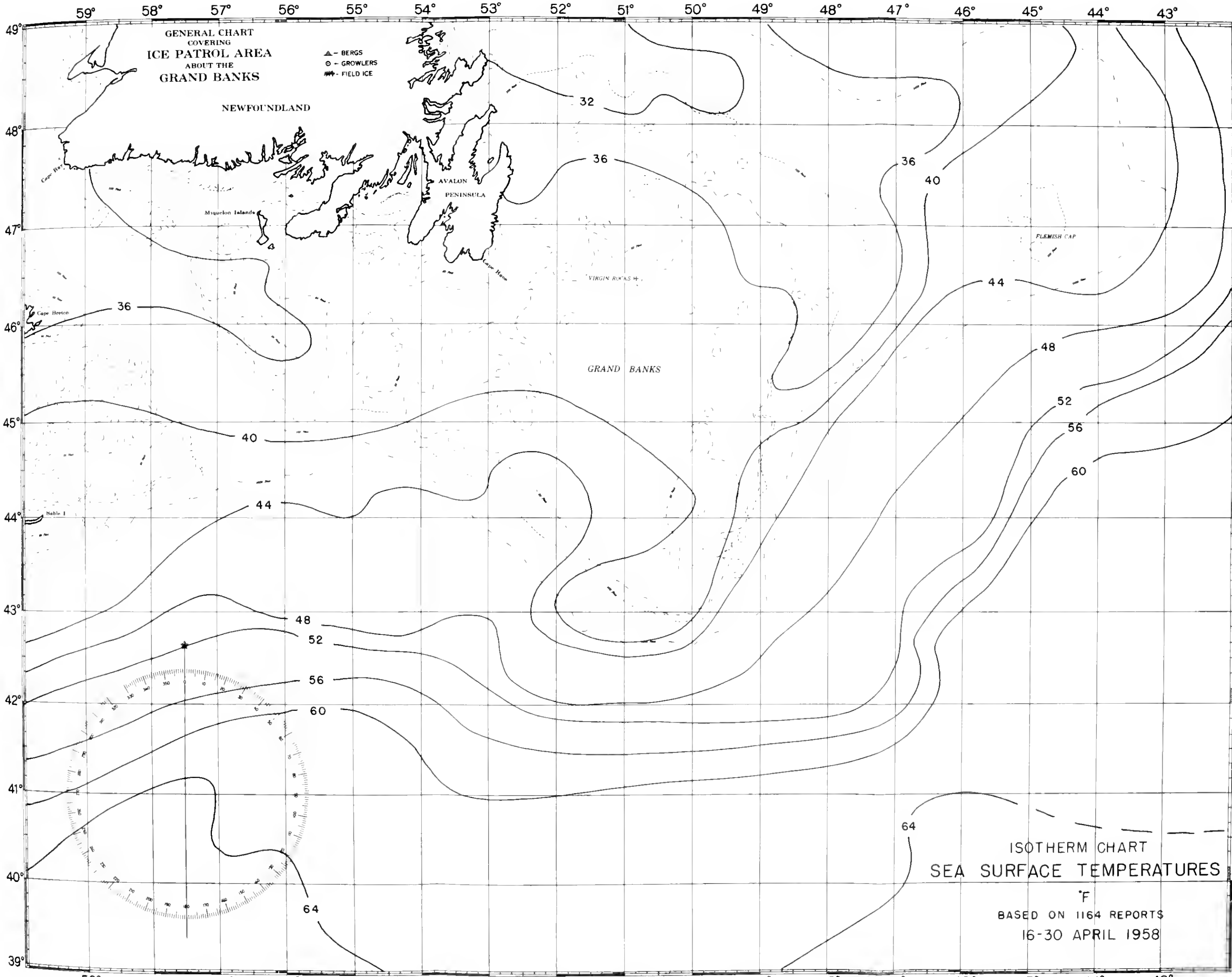
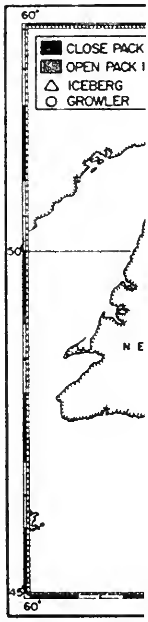


FIGURE 15.—Surface Isotherms for the period 16–30 April 1958.



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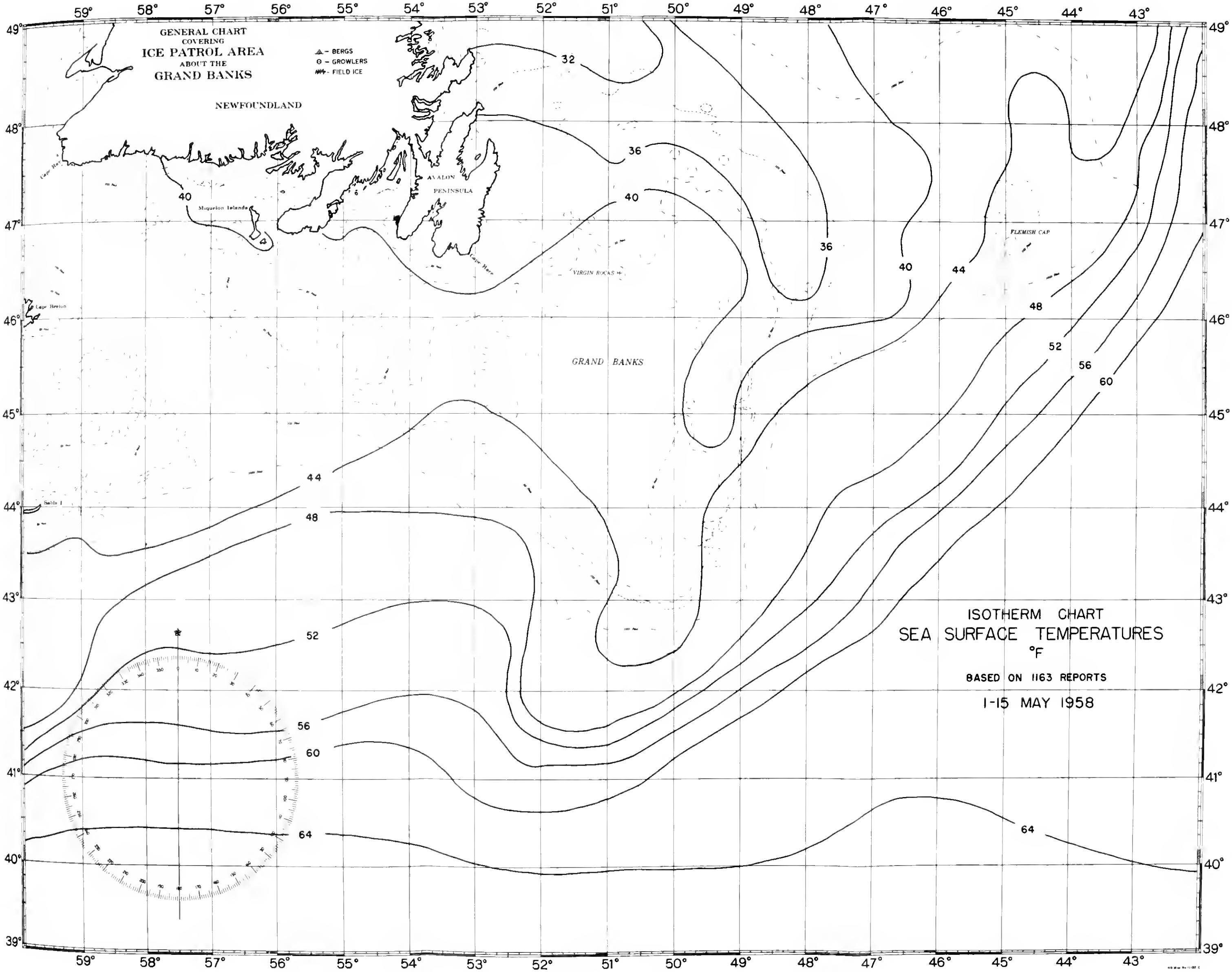
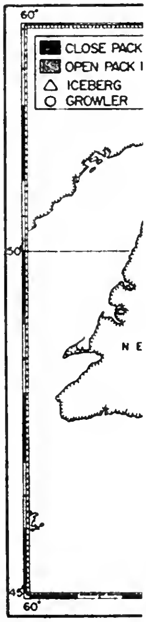


FIGURE 16.—Surface Isotherms for the period 1-15 May 1958.



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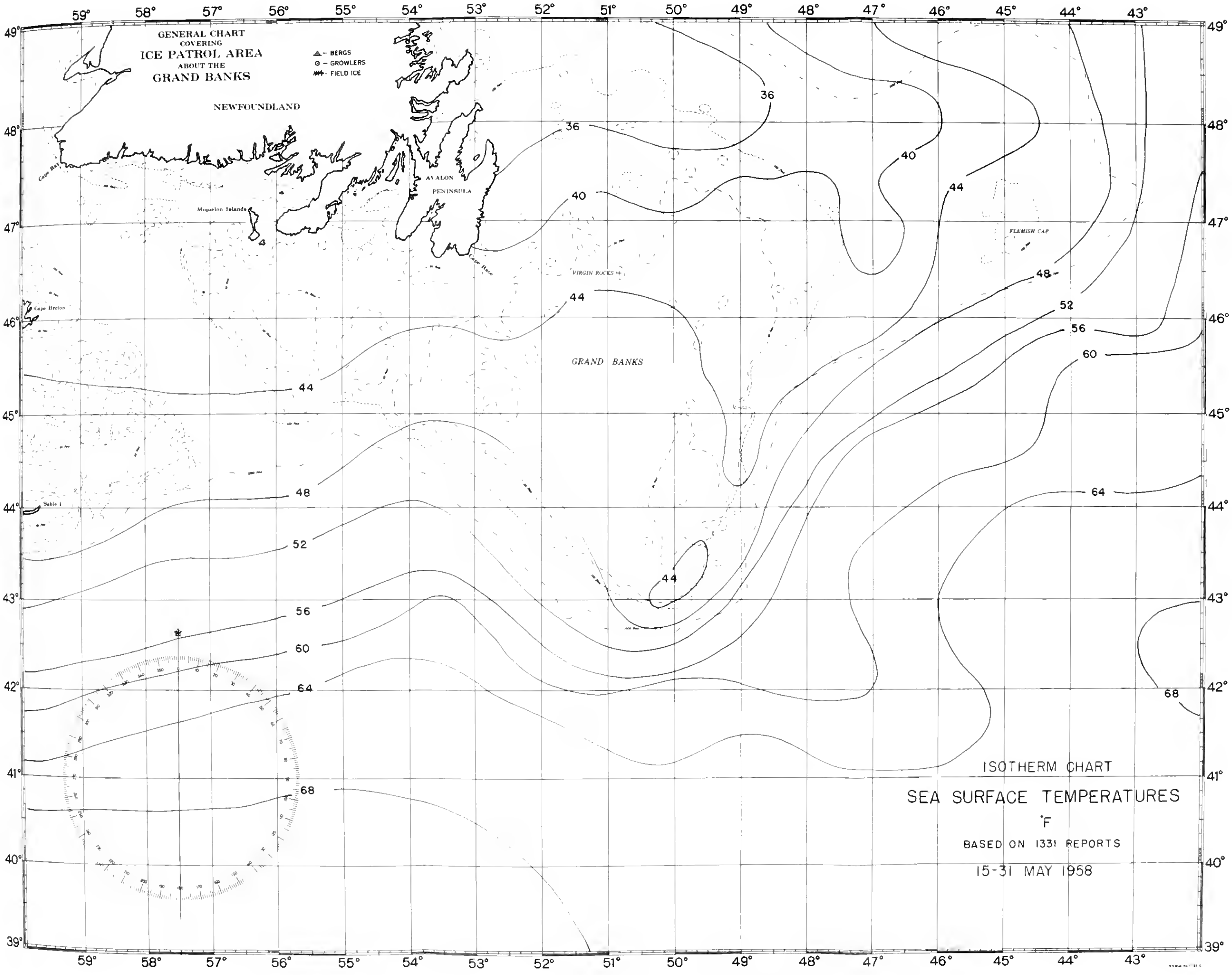

FIGURE 17.—Surface Isotherms for the period 16–31 May 1958.

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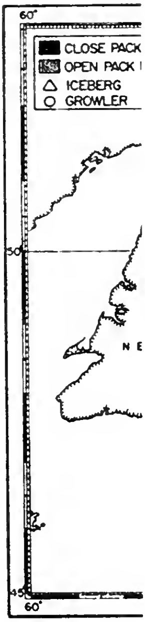

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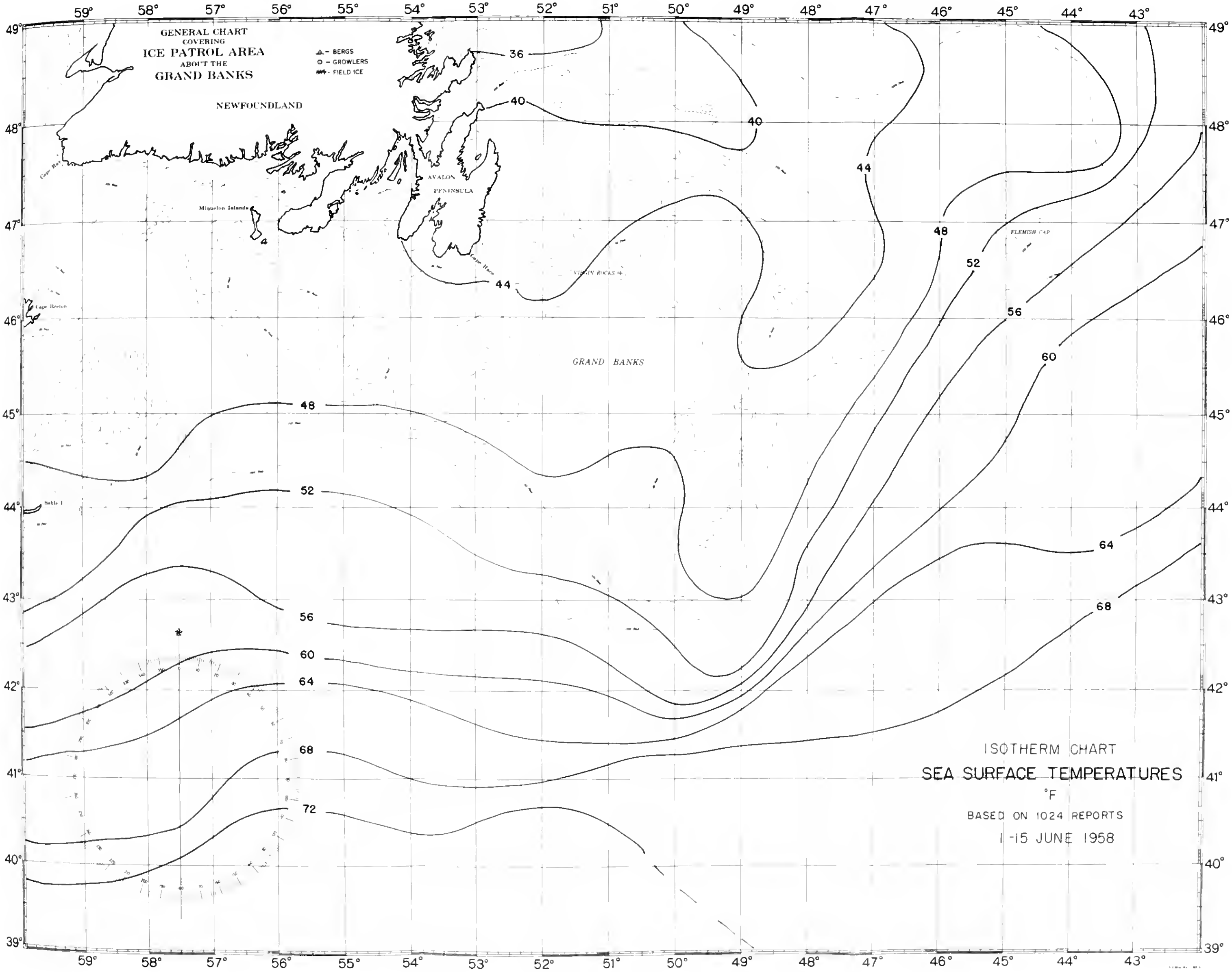
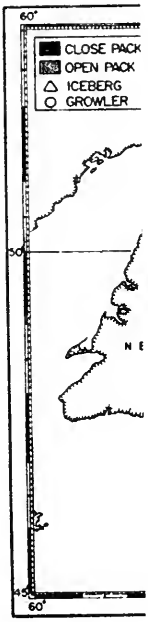


FIGURE 18.—Surface Isotherms for the period 1-15 June 1958.



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July

Reports of icebergs sighted north of latitude 50° became less frequent as the month wore on, until by the end of July, only an occasional berg was sighted in the eastern approaches to the Strait of Belle Isle.

The second week in July, however, saw several small bergs, survivors of the southward onslaught during June, drift to between 48° and 49° north latitude. One of these reached to position 46°48′N. 47°46′W. where, on the 18th, it was last sighted as a growler and melting rapidly. This last report was the only known iceberg which drifted south of the 48th parallel during 1958. That berg and other ice conditions for July are shown on figure 12.

August–December

Occasional bergs and growlers were reported off the eastern entrance to the Strait of Belle Isle up to 21 August and none were reported after that date.

Vessels using the Hudson Bay steamer route to Port Churchill reported scattered bergs along the Labrador coast and rather light ice conditions in general. The Canadian Ice Information Officer also reported that ice conditions along that route were extremely favorable.

Reports of icebergs and storis ice off Cape Farewell continued throughout the year indicating possible heavier-than-average conditions. However, in late summer and along the East Greenland coast, the pack edge receded exceptionally far to the northward and bergs were sighted in Denmark Strait at unusual distances off the Greenland Coast.

During the summer of 1958 a transatlantic aircraft reported a giant floe or iceberg several hundred miles eastward of Ireland. Investigation by British authorities revealed that the observation was made under difficult conditions and by an inexperienced observer. The report was established to be an oil slick.

TABLE OF ICE REPORTS, 1958

No.	Date	Name of vessel	North latitude °	North latitude ′	West longitude °	West longitude ′	Description
1	Jan. 14	USCG aircraft	Straight of Belle Isle and eastward to longitude 54° W.				Strings of loose field ice.
2	Jan. 25	Capable	52	48	55	04	Iceberg moving NNW 1 to 2 knots.
3	Jan. 29	La Bourdonnaise	54	54	53	26	3 bergs.
4	..do	....do	55	05	55	06	Large berg.
5	Mar. 14	Ice Patrol aircraft	51	10	54	50	Southern limit of ice field.
			to				
			52	10	54	00	
6	..do	....do	51	58	55	37	Berg.
7	..do	....do	52	01	55	40	Growler.
8	..do	....do	52	10	55	35	Berg.
9	..do	Belle Isle radio	North and northwest from Belle Isle.				Heavy close pack ice.
10	..do	....do	Eastward from Belle Isle.				Strings of loose ice.
11	Mar. 15	Mormacoak	50	55	57	25	Scattered sometimes heavy ice floes.
12	Mar. 17	Belle Isle radio	Belle Isle				Close packed ice north and west, strings loose iceall other directions.
13	Mar. 18	Ice Patrol aircraft	51	20	55	30	Southern limit of ice field.
			to				
			51	20	54	50	
			to				
			52	00	54	50	
			to				
			53	15	52	10	
14	do	do	52	30	55	50	5 bergs, 11 growlers.
			to				
			53	30	55	40	
			to				
			53	30	54	40	
			to				
			52	30	54	40	
15	Mar. 18	Ice Patrol aircraft	52	47	51	55	Growler.
16	Mar. 19	Belle Isle radio	Belle Isle				Close packed ice in all directions.
17	..do	Canadian Ice Information Office, Halifax.	Cabot Strait and Gulf of St. Lawrence				Ship track and main body Gulf of St. Lawrence ice free. St. Lawrence River navigable to Quebec City.
18	Mar. 20	Belle Isle radio	Belle Isle				Close packed ice east and west, packed with open lakes north and northwest.
19	Mar. 21	Ice Patrol aircraft	49	50	54	50	Southern limit of ice field.
			to				
			50	00	53	40	
			to				
			51	10	53	40	
			to				
			51	40	52	00	
20	..do	....do	51	15	55	30	5 bergs; 5 possible bergs.
			to				
			51	15	53	30	
			to				
			51	55	53	30	
			to				
			51	55	55	30	
21	Mar. 22	Belle Isle radio	Belle Isle				Close packed ice in all directions.
22	Mar. 24	....do	Belle Isle				Heavy pack ice in all directions.
23	Mar. 25	Ice Patrol aircraft	Cape Fogo to				Southern limit of ice field.
			51	00	52	30	
			to				
			51	30	52	30	
24	Mar 26	Belle Isle radio	Belle Isle				Close packed ice in all directions.
25	Mar. 27	Ice Patrol aircraft	Between the Grey Islands and Cape Bauld, Newfoundland.				9 bergs; 12 growlers.
26	..do	do	50	52	52	38	Growler.
27	..do	....do	51	17	54	08	Do.
28	..do	....do	51	37	54	41	Berg.
29	..do	....do	51	46	54	54	Do.

TABLE OF ICE REPORTS, 1958—Continued

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
30	..do.....	....do....................	52 02	54 57	Do.
31	..do.....	....do....................	52 04	54 35	Do.
32	..do.....	....do....................	Cape Fogo to 50 20 to 51 40 to 52 30	53 20 to 52 40 to 52 40	Southern limit of field ice.
33	..do.....	Belle Isle radio............	Belle Isle............		Close packed ice in all directions.
34	Mar. 28	....do....................	Belle Isle............		Do.
35	Mar. 29	Canadian Ice Information Office, Halifax.	Gulf of St. Lawrence..		Main steamer track Gulf of St. Lawrence and Cabot Strait remain ice free to longitude 67 W. Loose patches drift ice in river from longitude 67 W. to Quebec City.
36	..do.....	Belle Isle radio............	Belle Isle............		Close packed ice in all directions.
37	Mar. 31	Ice Patrol aircraft..........	Cape Freels to Funk Island thence North.		Southern and eastern limit of ice field.
38	..do.....	Belle Isle radio............	Belle Isle............		Close packed ice in all directions.
39	April 1	....do....................	Belle Isle............		Do.
40	..do.....	Gander radio..............	51 30	54 40	2 bergs.
41	..do.....	Canadian Ice Information Office, Halifax.	Gulf of St. Lawrence..		Main body of the Gulf of St. Lawrence continues to be ice free. Drift ice exists in Northumberland Strait and North of a line from Cape Whittle, Quebec to 50° N 59° W to Riche Point, Newfoundland. St. Lawrence River open to Quebec City except for loose patches of drift ice
42	April 2	Belle Isle radio............	Belle Isle............		Close packed ice in all directions.
43	April 3	Ocean Station Bravo........	56 40	51 15	Berg.
44	..do.....	Belle Isle radio............	Belle Isle............		Close packed ice in all directions.
45	April 7	Ice Patrol aircraft..........	50 00 to 51 40 to Belle Isle, Newfoundland. to Cape Bauld, Newfoundland. to 50 00	54 20 to 54 30 to 54 20	7 bergs, 19 growlers.
46	..do.....	....do....................	Cape Freels, Newfoundland. to 52 00 thence North	54 00	Limits of Ice field.
47	April 8..	Fogo Island radio..........	Fogo Island,		Ice moving off shore.
48	..do.....	Twillingate radio...........	Twillingate, Newfoundland.		Ice moving out of bay.
49	April 10	Belle Isle radio............	Belle Isle............		Loose pack ice north, west and south.
50	..do.....	Canadian Ice Information Office, Halifax.	Gulf of St. Lawrence..		Main body of the Gulf continues to be ice free except for small berg reported off Heath Point, Anticosti Island, moving Southeastward.
51	April 11	Ice Patrol aircraft..........	49 50	63 10	Berg, 2 growlers.
52	..do.....	....do....................	49 57	53 09	Berg.
53	..do.....	....do....................	Within 60 miles North and Northwest of Fogo Island, Newfoundland.		20 bergs, many growlers.

No.	Date	Name of vessel	North latitude ° ′	West longitude ° ′	Description
54	..do.....	....do.....	Cape Fogo, Newfoundland to 49 50 to 50 30 to 51 30	52 30 / 54 00 / 53 00	Limits of ice field.
55	April 12.	Twillingate radio.....	Twillingate, Newfoundland.		Ice moving slowly out of bay.
56	April 15	Ice Patrol aircraft.....	49 29	52 49	Berg.
57	..do.....	....do.....	Funk Island to Belle Isle.		Many bergs and growlers.
58	..do.....	....do.....	Bonavista Bay to 49 50 to 52 00	51 10 / 53 30	Limits of ice field.
59	April 16	....do.....	Sixty miles off Newfoundland and Labrador coasts between 49 30	53 00	Close packed field ice with scattered bergs and growlers.
60	..do.....	....do.....	49 00 to 50 00 to 52 00 to 53 00	53 30 / 51 00 / 53 30 / 52 00	Limits of loose field ice.
61	..do.....	....do.....	49 26	53 02	Berg, several growlers.
62	..do.....	Twillingate radio.....	Twillingate, Newfoundland.		Strings of ice 10 miles NW extend northward, close packed ice extends N and E.
63	April 17	Canadian Ice Information Office, Halifax.	48 43	61 52	Growler and smaller pieces.
64	..do.....	....do.....	Gulf of St. Lawrence..		Main body of Gulf remains ice free. Drift ice in Northumberland Strait and along coast of Prince Edward Island.
65	..do.....	Belle Isle radio.....	Belle Isle, Newfoundland.		Unlimited strings of loose ice N., close packed ice E.
66	April 18	Fogo Island radio.....	Fogo Island, Newfoundland.		Loose ice in all directions.
67	April 19	Harbor Deep radio.....	Harbor Deep, Newfoundland.		Ice tight to land.
68	April 21	Ice Patrol aircraft.....	48 50	52 30	Berg, several growlers.
69	..do.....	....do.....	49 05	51 50	Scattered growlers.
70	..do.....	....do.....	49 18	50 55	Growler.
71	..do.....	....do.....	49 25	51 36	Do.
72	..do.....	....do.....	49 26	52 56	2 bergs.
73	..do.....	....do.....	49 28	52 40	Growler.
74	..do.....	....do.....	49 32	50 25	Do.
75	..do.....	....do.....	49 35	53 17	Do.
76	..do.....	....do.....	49 46	53 20	Berg.
77	..do.....	....do.....	Fogo Island Newfoundland to Funk Island to Cape Freels, Newfoundland to 49 30 to 48 50 to 49 00 to 50 00 thence north	52 30 / 52 40 / 51 00 / 53 00	Limits of ice field.
78	April 21	USCGC Ingham.....	48 56	51 20	Field ice and growlers extensive to the westward.
79	..do.....	....do.....	49 30	50 39	Scattered growlers.
80	..do.....	Fogo Island radio.....	Fogo Island, Newfoundland.		Solid jam ice.
81	April 22	Twillingate radio.....	Twillingate, Newfoundland.		Jam of heavy ice in bay extends northward to Labrador.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
82	April 24	Ice Patrol aircraft	49	55	53	03	Berg.
83	..do	....do	50	01	53	10	Do.
84	..do	....do	50	04	53	21	Do.
85	..do	....do	50 00 to 50 10 to 49 45 to 49 10 to 48 55		52 30 to 53 00 to 51 30 to 50 45 to 52 20		Limits of ice field.
86	April 25	Ice Patrol aircraft	48	45	52	38	Growler.
87	..do	....do	49	18	52	49	Berg.
88	..do	....do	49 20 to 49 00 to 49 20 to 50 00		52 40 to 52 20 to 50 30 to 51 30		Limits of ice field.
89	..do	Ocean Station Bravo	56	52	50	52	Berg.
90	April 26	USCGC Evergreen	49	31	49	49	Widely scattered brash.
91	April 27	....do	49	45	49	40	Widely scattered growlers and brash to westward.
92	..do	....do	48	15	51	16	String of field ice eight-tenths cover and 1,000 yds. wide.
93	..do	Fairtry	57	36	46	00	Large berg.
94	April 28	Ice Patrol aircraft	49	07	53	00	Berg.
95	..do	....do	49	15	53	11	Do.
96	..do	....do	Within area from Baccalieu Island, Newfoundland to Cape Freels, Newfoundland and 50 miles offshore.				17 Growlers.
97	..do	....do	48	30	51	30	Widely scattered chunks and growlers.
98	..do	....do	Extends southward in a 10-mile-wide belt of loose strings, from 49 30 to 48 20		51 30 to 51 40		Limits of ice field.
99	..do	USCGC Evergreen	48	54	52	24	2 radar targets and a small berg.
100	..do	....do	48	31	52	45	Berg.
101	..do	Canadian Ice Information Office, Halifax.	50	50	58	40	Large berg.
102	..do	....do	49	21	58	31	Small berg.
103	April 29	L'Aventure	48	19	52	43	Small berg and growler.
104	..do	USCGC Evergreen	48	42	49	25	Growler.
105	..do	....do	48	51	49	28	2 growlers.
106	..do	Belle Isle Radio	Belle Isle, Newfoundland.				No ice in sight.
107	..do	Navy Ice Reconnaissance	50	49	55	25	Berg.
108	..do	....do	51	42	55	45	Do.
109	..do	....do	52	03	55	12	Do.
110	May 3	Ice Patrol aircraft	48	35	51	25	2 growlers.
111	..do	....do	48	44	51	48	Radar target, probable ice.
112	..do	....do	48	45	50	53	Growler.
113	..do	....do	49	06	52	08	Radar targets, probable ice.
114	..do	....do	49	15	52	46	Radar target, probable berg.
115	..do	....do	49	17	52	15	Growler.
116	..do	....do	49	25	52	40	Radar targets, probable ice.
117	..do	....do	49	25	52	13	Growler.
118	..do	....do	49 20 to Funk Island Newfoundland.		52 00		Limit of ice field.
119	..do	Germont	49	36	53	32	2 small bergs.
120	May 6	Ice Patrol aircraft	49	47	53	00	Large berg, grounded.
121	..do	....do	49	20	50	56	Growler.
122	..do	....do	Between Cape Fogo and Funk Island.				5 bergs, 6 growlers.
123	..do	....do	49	50	51	35	3 growlers.
124	..do	....do	50	20	53	50	4 bergs, 3 growlers.
125	..do	....do	50	23	52	50	Growler.
126	..do	....do	50	15	53	50	5 bergs, 4 growlers.
127	..do	....do	50	45	54	40	5 bergs, 2 growlers.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
128	..do	....do	51 00	54 10	4 bergs, 2 growlers.
129	..do	....do	51 00	53 20	2 bergs, 10 growlers.
130	..do	....do	50 10	55 00	Limit of ice field and brash.
			to 50 00	53 00	
			to 49 20	52 00	
			to 50 30	52 00	
			to 51 30	53 00	
131	..do	USAF Aircraft	57 37	38 01	Large berg.
132	May 7	Scandinavian Airlines	49 20	52 30	Huge berg and loose pack. (Same as No. 122)
133	..do	Navy Ice Reconnaissance	Hare Bay, Newfoundland.		Western limit of ice field.
			to 51 40	54 50	
			to 51 55	55 00	
			to 52 00	54 40	
			to 51 40	54 15	
			to 52 00	54 00	
			to 52 50	55 00	
134	May 8	USAF aircraft	58 07	40 00	Three bergs.
135	..do	Godafoss	56 33	37 40	Berg.
136	May 10	BOAC aircraft	10–20 miles east of Wesleyville, Newfoundland.		Berg. (Same as No. 122)
137	May 11	KLM aircraft	49 20	53 00	Do.
138	..do	Baskerville	50 01	52 45	2 small bergs.
139	..do	....do	50 08	52 55	Berg.
140	..do	USCGC Eastwind	Eastern approaches to Strait of Belle Isle between longitudes. 54° 40′ W. and 53° 40′ W.		Open pack ice two-tenths cover with brash extending to 52° 55′ W.
141	..do	....do	52 25	52 35	Eastern limits of open pack and scattered field ice.
			53 40	to 52 40	
			to 55 10	52 30	
142	May 13	Ice Patrol aircraft	51 50	54 40	Southern limits of open pack field ice in deteriorating condition.
			to 50 10	55 00	
			to 50 05	53 20	
			to 51 15	53 25	
			to 51 35	50 20	
			to 52 00	53 00	
143	..do	....do	49 10	51 30	Berg.
144	..do	....do	49 17	53 02	Large berg, grounded. (Same as No. 122)
145	..do	....do	49 19	52 00	Berg.
146	..do	....do	49 36	53 25	2 bergs and growler.
147	..do	....do	49 42	51 47	2 growlers.
148	..do	....do	49 43	50 38	Growler.
149	..do	....do	49 49	53 05	Do.
150	..do	....do	49 50	50 58	Do.
151	..do	....do	49 52	53 38	Berg.
152	..do	....do	49 53	51 22	Berg and growler.
153	..do	....do	49 53	53 52	Do.
154	..do	....do	49 55	50 56	Berg.
155	..do	....do	49 55	52 27	Do.
156	..do	....do	49 55	53 35	Growler.
157	..do	....do	49 57	51 50	Berg and growler.
158	..do	....do	49 57	53 10	Berg.
159	..do	....do	50 04	51 13	Berg.
160	..do	....do	50 13	51 15	Large patch field ice.
161	..do	....do	50 22	51 33	2 bergs and growler.
162	..do	....do	Area between latitudes 50° N. and 52° N. and longitudes 53° W. and 55° W.		25 bergs, 10 growlers.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
163	..do.....	....do....................	Area between latitudes 50° N. and 52° N. and longitudes 52° W. and 55° W.		15 bergs, 12 growlers.
164	May 15	Navy Ice Reconnaissance....	Between latitudes 50° N. and 51° N. and longitudes 53° 30′ W. and 55° 30′ W.		Patches of close pack field ice.
165	..do.....	....do....................	Cape St. Francis to 54° N. 54° W.		Southern limits of consolidated pack.
166	..do.....	....do....................	Along Newfoundland and Labrador coast between 50° 30′ N. and 52° 30′ N.		26 bergs.
167	May 16	Ice Patrol aircraft..........	48 30	52 10	2 bergs.
168	..do.....	....do....................	On a line from Cape Bonavista to 49 30	51 00	7 bergs, 3 growlers.
169	..do.....	....do....................	49 45	51 38	Berg.
170	..do.....	....do....................	Near 51 30	52 00	Scattered brash, 8 growlers..
171	May 17	Unidentified aircraft.........	48 30	51 00	Berg.
172	..do.....	HMCS Outremont..........	48 26	52 18	Do.
173	May 19	Ice Patrol aircraft..........	48 00	52 08	Radar target, possible berg.
174	..do.....	....do....................	48 15	50 50	Do.
175	..do.....	....do....................	48 39	51 20	Berg.
176	..do.....	....do....................	49 35	50 42	Radar target, possible berg.
177	..do.....	....do....................	50 45	52 30	Berg.
178	..do.....	....do....................	51 00	52 50	Scattered brash and growlers.
179	..do.....	TWA aircraft..............	50 02	51 42	Berg.
180	..do.....	....do....................	On a line from 49 56 to 49 45	52 08 to 53 00	5 bergs.
181	..do.....	Hudson Sound............	48 33	53 51	Berg, 3 growlers.
182	..do.....	....do....................	48 35	52 46	Growler.
183	May 20	Louisa Gorthon...........	Between 52° 55′ N. and 52° 50′ N. and 51° 50′ W. and 52° 00′ W.		Scattered growlers and brash.
184	May 21	Imperial Sarnia...........	49 04	53 18	Berg.
185	..do.....	....do....................	49 19	53 26	Do.
186	..do.....	....do....................	49 25	53 16	Do.
187	..do.....	Trollafoss................	48 48	49 58	Radar contact, possible berg.
188	..do.....	....do....................	48 51	50 55	Do.
189	..do.....	....do....................	48 42	49 56	Do.
190	May 21	Ice Information Office, Gander	Area from Cape Fogo to 52 40 and westward	54 40	Scattered bergs and numerous growlers north of 50° 40′ N. 5 growlers in Notre Dame Bay area including Straits of Belle Isle free of drift ice, except one 20-mile patch centered at 51° 15′ N. 54° 35′ W.
191	..do.....	HMCS Outremont..........	48 33	52 55	Berg.
192	May 22	Ice Patrol aircraft..........	48 35	51 45	Radar target, probable berg.
193	..do.....	USNS Chattahoochee.......	52 37	50 37	Loose brash and growlers.
194	..do.....	....do....................	54 09	51 30	Scattered growlers and brash.
195	..do.....	Ribblehead...............	48 33	52 01	Radar target, probable berg.
196	..do.....	....do....................	48 52	51 32	Do.
197	..do.....	....do....................	49 12	50 30	Growlers.
198	..do.....	HMCS Outremont..........	49 02	53 12	Berg.
199	..do.....	....do....................	49 03	53 17	Do.
200	..do.....	....do....................	49 19	53 24	Do.
201	..do.....	....do....................	49 24	53 40	2 bers.
202	May 23	TWA aircraft..............	51 00	52 00	5 bergs.
203	..do.....	Samtiago.................	46 17	52 36	Berg (doubtful).
204	May 24	Santa Maria..............	47 40	49 35	8 radar targets, possible ice.
205	May 25	Ramorehead..............	47 43	49 57	2 radar targets, possible ice.
206	..do.....	....do....................	47 36	49 35	5 radar targets, possible ice.
207	..do.....	Manchester Mariner........	52 49 to Belle Isle, Newfoundland	52 11	12 bergs.
208	..do.....	Rautas...................	49 00	50 43	Radar target, possible berg.
209	..do.....	....do....................	48 59	50 20	Do.
210	..do.....	Lousado..................	51 06	49 54	Berg.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
211	May 27	Godafoss	53 40 to 52 34	52 45 to 50 18	Edge of ice pack.
212	..do.....	Express of Britain	52 56	49 57	String of broken field ice stretching south.
213	..do.....	....do	52 49	50 20	Southern edge of ice field, 15 bergs, many growlers.
214	..do.....	....do	52 47 to 52 49	50 41 to 50 56	13 bergs, growler.
215	May 28	....do	52 39 to 52 09	50 57 to 53 28	15 bergs, 2 growlers.
216	..do.....	....do	52 03 to 51 50	53 52 to 55 48	14 bergs.
217	..do.....	....do	51 47	56 09	Berg, no ice sighted to west.
218	..do.....	Ice Information Office, Gander.	Labrador and north Newfoundland coasts.		Scattered bergs and growlers.
219	..do.....	Unknown aircraft	49 00	53 00	Several large bergs.
220	..do.....	SAL aircraft	51 50	50 00	10 bergs.
221	..do.....	Ice Patrol aircraft	48 54	51 40	Berg.
222	..do.....	....do	48 54	53 07	Do.
223	..do.....	....do	48 59	52 42	Growler.
224	..do.....	....do	49 06	53 15	Berg, growlers.
225	..do.....	....do	49 06	50 06	Berg.
226	..do.....	....do	49 15	52 52	Do.
227	..do.....	....do	49 32	51 58	Growler.
228	..do.....	....do	49 37	52 24	Berg.
229	..do.....	....do	49 39	52 35	Growler.
230	..do.....	....do	49 47 to 49 52	52 40 to 51 40	5 growlers.
231	..do.....	....do	50 23	49 15	Berg.
232	..do.....	....do	50 25	48 58	Radar target, possible growler.
233	May 29	TWA aircraft	52 50	50 40	Berg.
234	May 30	Lindenwald	51 10	49 30	Growler, radar contact, possible berg.
235	..do.....	Germont	49 39	54 50	Do.
236	May 31	Empress of France	Between latitudes 52° 20′ N. and 52° 50′ N. and longitudes 50° 00′ W. and 50° 30′ W.		Bergs, growlers, brash.
237	June 1	Poseidon	52 20	49 35	4 radar targets, possible ice.
238	..do.....	....do	52 02	53 51	Small bergs.
239	..do.....	Unidentified Ship	53 48	55 30	2 bergs.
240	..do.....	USCGC Duane	49 20	49 51	Berg.
241	..do.....	....do	51 23	49 02	Radar target, possible berg.
242	..do.....	USN Aircraft	52 30	49 45	Berg.
243	..do.....	USCGC Spar	50 27	52 37	Do.
244	..do.....	....do	51 42	52 45	Radar target, possible berg.
245	June 2	....do	53 24 to 54 00	52 48 to 52 48	Numerous radar targets, possible bergs.
246	..do.....	Ice Patrol Aircraft	50 38	48 49	Berg.
247	..do.....	....do	51 30	49 10	Do.
248	..do.....	....do	51 32	50 12	Do.
249	..do.....	....do	51 36	50 38	Do.
250	..do.....	....do	51 35	50 26	Growler.
251	..do.....	....do	51 47	49 38	Berg.
252	June 3	USCGC Rockaway	54 45	50 20	Small berg, growler.
253	..do.....	....do	54 32	50 14	Small berg, radar contact, possible ice.
254	..do.....	Elfriede	Between latitudes 53° 10′ N. and 53° 36′ N. and longitudes 51° W. and 50′ W.		15 bergs, several growlers.
255	..do.....	MATS Aircraft	51 28	50 37	Berg.
256	June 4	USS Rushmore	Between latitudes 49° 44′ N. and 51° 08′ N. and longitudes 52° 57′ W. and 53° 56′ W.		6 bergs.
257	..do.....	....do	52 51 to 53 05	55 04 to 55 16	3 bergs.
258	..do.....	....do	54 44	52 48	Berg.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
259	..do.....	....do.....	52	30	54	28	2 bergs, growlers.
260	..do.....	....do.....	51	00	53	49	2 bergs.
261	..do.....	....do.....	52	40	54	11	3 bergs.
262	..do.....	....do.....	52	07	54	20	2 bergs.
263	..do.....	....do.....	51	29	54	06	Do.
264	..do.....	....do.....	50	16	53	32	Berg.
265	..do.....	....do.....	50	36	53	32	Do.
266	..do.....	Ice Information Office, Gander	Spotted Island, Labrador to Twillingate, Newfoundland.				Ice free except for scattered bergs and growlers.
267	..do.....	Leabeth.....	51	34	54	26	Berg.
268	June 5	Seven Seas.....	51	49	54	51	Berg, growlers
269	..do.....	....do.....	52	02	54	45	Berg.
270	..do.....	....do.....	52	20	50	50	5 bergs.
271	..do.....	....do.....	52	20	51	20	Do.
272	..do.....	....do.....	Between latitudes 51° 15′ N. and 52° 30′ N. and longitudes 49° 52′ W. and 50° 40′ W.				7 bergs, several growlers.
273	..do.....	Cairngowan.....	51	50	55	50	4 bergs.
274	..do.....	Empress of Britain.....	Between latitudes 51° 54′ N. and 52° 04′ N. and longitudes 54° 15′ W. and 55° 55′ W.				12 bergs.
275	..do.....	Ice Patrol aircraft.....	50	05	51	53	Growler.
276	..do.....	....do.....	51	17	52	27	Do.
277	..do.....	....do.....	51	40	52	57	Berg.
278	..do.....	....do.....	51	53	51	30	Do.
279	..do.....	....do.....	52	03	51	28	Growler.
280	June 6	....do.....	49	05	53	17	Berg.
281	..do.....	....do.....	49	08	53	33	Do.
282	..do.....	....do.....	49	13	53	18	Do.
283	..do.....	....do.....	49	27	53	37	Do.
284	..do.....	....do.....	49	35	53	16	
285	..do.....	....do.....	49	37	52	59	Do.
286	..do.....	....do.....	49	38	52	57	Growler.
287	..do.....	....do.....	49	39	52	56	Growler.
288	..do.....	....do.....	49	42	53	43	Berg.
289	..do.....	....do.....	49	48	51	57	Growler.
290	..do.....	....do.....	49	50	53	42	Berg.
291	..do.....	....do.....	49	59	53	07	Growler.
292	..do.....	....do.....	50	07	53	14	Berg.
293	..do.....	....do.....	50	08	53	26	Growler.
294	..do.....	....do.....	50	21	53	26	Berg.
295	..do.....	....do.....	50	33	53	21	Do.
296	..do.....	....do.....	50	38	53	59	Do.
297	..do.....	....do.....	51	01	53	29	Growler.
298	..do.....	....do.....	51	03	53	04	Berg.
299	..do.....	....do.....	51	07	53	41	Do.
300	..do.....	....do.....	51	12	52	25	Growler.
301	..do.....	....do.....	51	22	53	28	Berg.
302	..do.....	....do.....	51	37	52	52	Growler.
303	..do.....	....do.....	51	38	52	58	Do.
304	..do.....	....do.....	51	38	53	04	Do.
305	..do.....	....do.....	51	38	53	23	Berg.
306	..do.....	....do.....	51	53	54	39	Do.
307	..do.....	....do.....	51	59	53	39	Do.
308	..do.....	....do.....	52	06	54	22	Do.
309	..do.....	....do.....	52	18	54	13	Do.
310	..do.....	Transontario.....	Between latitudes 51° 52′ N. and 52° 04′ N. and longitudes 53° 48′ W. and 54° 41′ W.				4 bergs, 2 growlers.
311	..do.....	....do.....	Between latitudes 52° 05′ N. and 52° 30′ N. and longitudes 51° 00′ W. and 52° 00′ W.				Many bergs and growlers.
312	..do.....	....do.....	51	41	55	23	Berg.
313	..do.....	....do.....	51	53	55	02	Do.
314	..do.....	Francisca Sartori.....	53	57	50	26	Do.
315	..do.....	....do.....	53	37	50	46	Do.
316	June 7	Transontario.....	Between latitudes 51° 00′ N. and 52° 30′ N. and longitudes 51° 40′ W. and 49° 50′ W.				Many bergs and growlers.

No.	Date	Name of vessel	North latitude	West longitude	Description
			° ′	° ′	
317	..do.....	Saxonia	Between latitudes 52° 08′ N. and 52° 14′ N. and longitudes 51° 31′ W. and 51′ 00′ W.		Several radar targets, possible ice.
318	..do.....	Ivernia	52 46	50 09	Berg.
319	..do.....	....do	Between latitudes 52° 46′ N. and 52° 34′ N. and longitudes 50° 58′ W. and 50° 16′ W.		Several radar targets, possible ice.
320	..do.....	....do	52 26	51 39	Berg.
321	..do.....	....do	52 31	51 04	Radar target, possible ice.
322	..do.....	Saxonia	Between latitudes 52° 13′ N. and 52° 21′ N. and longitudes 50° 18′ W. and 50° 02′ W.		Several radar targets, possible bergs.
323	June 8	USS Rushmore	Between latitudes 50° N. and 52° N. and longitudes 53° W. and 54° W.		7 bergs.
324	..do.....	....do	Between latitudes 51° 40′ N. and 53° N. and longitudes 54° W. and 55° W.		Do.
325	..do.....	....do	Between latitudes 53° N. and 54° N. and longitudes 55° W. and 56° W.		18 bergs.
326	..do.....	Transpacific	52 51	52 08	Scattered bergs and growlers.
327	..do.....	Ivernia	Between latitudes 51° 52′ N. and 51° 46N. and longi tudes 53° 36° W. and 54° 45′ W.		Several bergs.
328	..do.....	Arosa Sun	51 55	54 50	Do.
329	..do.....	Carinthia	Between latitudes 53° 19′ N. and 52° 54′ N. and longitudes 51° 41′ W. and 50° 46′ W.		6 bergs, 3 growlers.
330	June 9	Carinthia	51 53	54 48	Berg.
331	..do.....	....do	52 21	54 11	2 radar targets, possible ice.
332	do.....	Arosa Sun	Between latitudes 52° 23′ N. and 52° 40′ N. and longitudes 51° 52′ W. and 50° 13′ W.		Many bergs and growlers.
333	..do.....	....do	52 29	51 44	Berg.
334	..do.....	Pan Am. Aircraft	52 15	50 00	Do.
335	..do.....	USCGC Bramble	Spotted Island, Labrador to Belle Isle, Newfoundland.		Many bergs and growlers.
336	..do.....	Callisto	52 37 to 52 18	50 20 to 51 45	Do.
337	..do.....	....do	51 49	54 46	Berg.
338	..do.....	Arkadia	51 51	54 49	Berg, growlers.
339	June 10	....do	52 23	51 47	9 bergs in 10 miles radius.
340	..do.....	Manchester Port	52 20	53 40	4 bergs.
341	..do.....	Germont	49 09	52 58	Berg.
342	..do.....	Ice Patrol Aircraft	Within 20 mile radius of Cape Freels, Newfoundland.		10 bergs, grounded.
343	..do.....	....do	50 26	49 42	Berg, growler.
344	..do.....	....do	50 28	49 05	Growler.
345	..do.....	....do	50 30	50 00	Berg.
346	..do.....	....do	50 42	50 40	Do.
347	..do.....	....do	50 50	49 25	7 growlers.
348	..do.....	....do	50 55	50 20	2 growlers.
349	..do.....	....do	50 58	48 50	Do.
350	..do.....	....do	51 06	50 25	Berg.
351	..do.....	....do	51 10	50 38	Do.
352	..do.....	....do	51 18	49 25	Do.
353	..do.....	....do	51 20	49 00	Do.
354	..do.....	....do	51 28	51 00	2 bergs.
355	..do.....	....do	51 30	50 10	Berg.
356	..do.....	....do	51 35 to 51 45	50 20 to 51 45	9 bergs, 3 growlers.
357	..do.....	....do	52 02	51 15	Berg.

No.	Date	Name of vessel	North latitude °	'	West longitude °	'	Description
358	..do.....	....do....................	52	05	50	30	Do.
359	..do.....	....do....................	52	10	51	30	5 bergs.
360	..do.....	Unidentified ship..........	50	02	53	18	Berg.
361	..do.....	....do....................	50	06	54	24	Do.
362	..do.....	....do....................	50	17	54	39	Do.
363	..do.....	....do....................	49	59	54	02	Do.
364	..do.....	....do....................	50	05	53	52	Do.
365	..do.....	do....................	50	04	53	50	Do.
366	..do.....	....do....................	49	23	53	10	Do.
367	..do.....	....do....................	49	05	53	21	Do.
368	..do.....	....do....................	49	11	53	21	Do.
369	..do.....	....do....................	49	16	53	04	Do.
370	..do.....	....do....................	49	32	53	25	Do.
371	..do.....	....do....................	49	48	53	53	Do.
372	..do.....	....do....................	49	50	53	47	Do.
373	..do.....	....do....................	50	03	53	35	Do.
374	..do.....	....do....................	50	30	53	23	Do.
375	June 11	Homeric................	51	46	55	52	Do.
376	..do.....	....do....................	51	50	56	00	Do.
377	..do.....	....do....................	51	52	55	21	Do.
378	..do.....	Roonagh Head............	52	35	52	11	Do.
379	June 12	Unidentified aircraft........	51	10	51	22	Do.
380	..do.....	Empress of England........	Belle Isle, Newfoundland to 56	16	53	25	11 bergs, many growlers.
381	..do.....	Andromeda...............	48	34	52	47	Berg.
382	..do.....	....do....................	49	30	53	41	Do.
383	..do.....	....do....................	53	51	49	40	Do.
384	..do.....	....do....................	49	18	53	23	Do.
385	June 13	Monika..................	49	30	53	35	Berg.
386	..do.....	Leanna..................	53	10	52	26	3 growlers.
387	..do.....	....do....................	53	04	52	40	Berg.
388	..do.....	....do....................	52	51	53	09	Do.
389	..do.....	....do....................	52	45	53	13	Do.
390	June 14	Mizar....................	48	56	52	26	Do.
391	..do.....	....do....................	48	51	52	30	Do.
392	..do.....	....do....................	51 18 to 52	30	54 26 to 55	30	11 bergs.
393	..do.....	Glacier..................	49 44 to 50	21	50 33 to 50	10	5 bergs.
394	..do.....	Rondo...................	49	40	49	13	Growler.
395	..do.....	....do....................	49	14	49	39	Berg.
396	June 16	Oklahoma................	48	25	49	10	Do.
397	..do.....	Lord Kelvin..............	48	57	49	40	Do.
398	..do.....	Ice Patrol aircraft..........	Blackhead Bay, Newfoundland.				Do.
399..	..do.....	....do....................	49	03	52	55	Berg and growler.
400	..do.....	....do....................	49	12	53	17	Berg.
401	..do.....	....do....................	49	15	49	35	Growler.
402	..do.....	....do....................	49	35	49	15	Berg and growler.
403	..do.....	....do....................	49	36	50	55	Berg.
404	..do.....	....do....................	49	38	53	19	Do.
405	..do.....	....do....................	49	40	49	35	3 growlers.
406	..do.....	....do....................	49	53	54	00	Berg.
407	..do.....	....do....................	50	08	53	28	Radar target, probable berg.
408	..do.....	....do....................	50	08	50	25	Berg.
409	..do.....	....do....................	50	09	51	35	Do.
410	..do.....	....do....................	50	15	49	30	2 growlers.
411	..do.....	....do....................	50	22	50	03	Berg.
412	..do.....	....do....................	50	27	50	22	Berg and growler.
413	..do.....	....do....................	50	34	51	42	Berg.
414	..do.....	....do....................	50	36	50	26	Do.
415	..do.....	....do....................	50	42	49	17	Do.
416	..do.....	....do....................	50	45	49	50	2 growlers.
417	..do.....	....do....................	50	51	50	11	Growler.
418	..do.....	....do....................	50	53	50	50	Berg.
419	June 18	Ryndam..................	51	39	56	02	Do.
420	..do.....	....do....................	51	49	55	11	Do.
421	..do.....	....do....................	51	50	55	10	Do.
422	..do.....	....do....................	51	51	55	02	Do.
423	..do.....	....do....................	51	51	55	29	Do.
424	..do.....	....do....................	52	11	53	55	Do.
425	..do.....	....do....................	52	09	55	11	Do.
426	..do.....	....do....................	52	14	53	13	Do.
427	..do.....	....do....................	52	10	52	33	Do.
428	..do.....	do....................	52	07	53	14	Do.
429	..do.....	USNS Cowanesque.........	51	43	53	47	Do.
430	..do.....	....do....................	52	20	54	30	10 bergs and growlers.
431	..do.....	....do....................	53	35	55	35	Do.
432	June 19	Unidentified..............	49	02	49	41	Berg.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
433	June 20	Chris	47	08	48	04	Do.
434	..do	Silversand	48	40	48	08	Do.
435	..do	Sunjewel	52	28	53	06	Do.
436	..do	....do	52	31	53	03	Do.
437	..do	....do	52	34	52	28	Do.
438	..do	Finn Merchant	48	25	49	40	Do.
439	..do	Sunjewel	51	49	54	58	Do.
440	..do	....do	51	52	54	43	Do.
441	..do	....do	51	55	54	35	Do.
442	..do	....do	52	02	55	03	Do.
443	..do	....do	52	07	54	28	Do.
444	..do	....do	52	12	54	33	Do.
445	..do	....do	52	18	54	22	Do.
446	June 21	John W. Mackay	49	51	49	06	Do.
447	..do	Margaret Bowater	51	39	56	02	Do.
448	..do	....do	51	51	55	30	Do.
449	..do	....do	52	02	55	04	Do.
450	..do	....do	52	03	54	26	Do.
451	..do	USCGS Coos Bay	50	36	51	52	Berg.
452	..do	....do	50	57	52	02	Do.
453	..do	....do	51	18	51	53	Do.
454	..do	....do	51	42	52	14	Do.
455	..do	....do	51	46	52	13	Do.
456	..do	....do	52	00	51	59	Do.
457	..do	....do	51	59	52	02	Do.
458	June 22	Foldenfjord	49	10	48	50	Do.
459	..do	USCG aircraft	50	43	51	58	Do.
460	..do	....do	51	04	51	50	Do.
461	..do	....do	51	08	52	09	Do.
462	..do	....do	51	22	51	45	Do.
463	June 24	....do	48	31	47	56	Do.
464	..do	....do	49	01	48	56	Growler.
465	..do	....do	49	03	53	06	Berg.
466	June 26	Lord Kelvin	49	35	50	29	Do.
467	..do	Ryndam	51	23	56	42	2 growlers.
468	..do	....do	51	32	56	11	Bergs.
469	..do	....do	51	45	55	39	Do.
470	..do	....do	51	49	55	37	Do.
471	June 27	Christian Sartori	53	01	52	33	Do.
472	..do	....do	53	13	52	46	Do.
473	..do	....do	53	13	52	41	Do.
474	June 28	USCGC Evergreen	48	55	52	48	2 bergs.
475	June 29	USAF aircraft	49	07	46	45	Berg.
476	June 30	USCGC Evergreen	50	21	49	50	Do.
477	..do	....do	52	03	52	53	Do.
478	July 5	USCG aircraft	48	44	50	02	Do.
479	..do	....do	48	49	52	59	Growler.
480	..do	Sunjewel	52	55	51	43	Do.
481	July 6	Finnsailor	48	24	49	56	Berg.
482	July 7	Vibyholm	40	12	50	00	Berg.
483	..do	....do	47	59	46	47	Do.
484	..do	....do	48	19	49	34	Do.
485	..do	Sarek	47	59	46	47	Do.
486	July 8	USCGC Evergreen	49	14	51	20	Do.
487	..do	USCG aircraft	48	00	48	45	Do.
488	..do	....do	48	31	53	55	Do.
489	..do	....do	49	13	51	21	Do.
490	July 13	Nieus Amsterdam	47	23	48	00	Do.
491	..do	....do	51	13	51	45	Do.
492	..do	Theodora	51	47	55	34	Do.
493	..do	....do	51	37	54	55	Do.
494	..do	....do	51	37	54	26	Do.
495	..do	....do	52	17	52	20	Do.
496	July 14	USCG aircraft	47	22	47	59	Do.
497	..do	Galatee	51	55	50	18	Do.
498	..do	Weidenborstel	52	10	50	36	Do.
500	July 15	Berlin	47	11	47	47	Do.
501	..do	USCG aircraft	47	08	47	46	Do.
502	..do	....do	48	48	50	49	Do.
503	..do	Empress of England	51	55	55	20	Do.
504	..do	....do	51	51	55	24	Do.
505	..do	....do	51	55	55	19	Do.
506	..do	....do	52	09	54	37	Do.
507	..do	....do	52	10	54	27	Do.
508	..do	....do	52	23	53	39	Do.
509	..do	....do	52	39	53	31	Do.
510	..do	....do	52	16	53	16	Do.
511	..do	....do	52	38	52	56	Do.
512	July 16	Magga Dan	49	52	54	01	Do.
513	..do	....do	51	00	51	40	3 bergs.
514	..do	....do	51	57	55	35	Berg.
515	..do	....do	54	30	53	00	Do.
516	July 17	Thaishore	49	54	54	43	Do.

No.	Date	Name of vessel	North latitude		West longitude		Description
			°	′	°	′	
517	..do.....	....do.....................	50	11	52	40	Do.
518	July 18	Carola Schulte.............	46	48	47	46	Do.
519	..do.....	....do.....................	49	07	50	26	Do.
520	July 19	Margaret Bowater..........	52	30	53	19	Do.
521	July 24	Rydboholm.................	51	33	56	40	Do.
522	July 25	Unidentified ship...........	51	41	55	43	Do.
523	..do.....	Puerto, Somozo............	51	42	55	43	Do.
524	July 28	USCG aircraft.............	48	26	52	19	Do.
525	..do.....	Unidentified ship...........	53	37	55	32	Do.
526	July 30	Baron Cawdor.............	52	04	55	22	Growler.
527	Aug. 2..	Unidentified ship...........	51	59	54	58	Berg.
528	..do.....	do.....................	52	18	53	54	Do.
529	Aug. 3	Edenmore..................	51	39	55	04	Do.
530	..do.....	....do.....................	52	13	53	36	Do.
531	Aug. 16	Rocksprings...............	51	59	55	35	Do.
532	..do.....	....do.....................	52	10	55	15	Do.
533	..do.....	....do.....................	52	26	55	34	Do.
534	Aug. 21	Beaver Dell................	51	49	55	59	Do.
535	..do.....	....do.....................	51	50	55	59	Do.
536	..do.....	....do.....................	51	59	55	32	Do.
537	..do.....	....do.....................	51	50	55	51	Growler.
538	Dec. 27	USCG aircraft.............	Strait of Belle Isle....				Close pack field ice in Strait and broken belts extending 22 miles to east of Belle Isle.

PHYSICAL OCEANOGRAPHY OF THE GRAND BANKS REGION AND THE LABRADOR SEA IN 1958[1]

By Floyd M. Soule and R. M. Morse
(U. S. Coast Guard)

The oceanographic vessel of the International Ice Patrol in 1958 was again the 180-foot tender class *USCGC Evergreen*. The arrangement of labratory and deck facilities and equipment have been described in earlier bulletins of this series. There are no major changes for the 1958 season.

During the 1958 season the *Evergreen* made three dynamic topographic surveys in the Grand Banks region. Of these the first covered the waters over and immediately seaward of the southern and eastern slopes of the Grand Banks from just westward of the Tail of the Banks northward to the latitude of Flemish Cap. This survey included 88 stations which were occupied between the morning of 3 April and the afternoon of 15 April. The work of collection of data began at the southwestern end of the area and progressed northward with no major interruption.

The second survey covered the waters over and immediately seaward of the northeastern slope of the Grand Banks from Flemish Cap northwestward and included an occupation of the Bonavista triangle. On this survey 80 stations were occupied between the early morning of 27 April and the morning of 5 May. Except for about an hour on the afternoon of 27 April, during which the ship was working through an ice string, there were no major interruptions. The work of collection of data began at the Bonavista triangle and progressed southeastward toward Flemish Cap.

The area covered by the third survey was similar to that covered by the first survey with the extension of section W (a north-south section at 50°15′W.) southward across the Atlantic Current. It was expedient to occupy this section from south to north and then continue with the network survey working northward toward Flemish Cap. The southernmost position necessary to completely cross the Atlantic Current was estimated as 38° N. To insure against missing part of it, from a possible deviation of the current from its expected position, observations were begun at 37°30′N. On this southward extension of section W stations were spaced

[1] To be reprinted as Contribution No. 1018 in the Collected Reprints of the Woods Hole Oceanographic Institution.

30 miles apart and the observations extended to a depth of about 3,000 meters instead of the usual 1,500 meters and were supplemented by bathythermograph casts every half hour on the runs between stations. The addition of this section was a contribution to United States participation in the International Geophysical Year. The section was occupied between the morning of 23 May and the night of 25 May. The ensuing network survey was completed on the morning of 5 June. There were no interruptions or unusual delays during this period. On this survey 95 stations were occupied, the first 15 of these being along section W.

A postseason cruise had been planned to include an occupation of the Bonavista triangle and the section across the Labrador Sea from South Wolf Island, Labrador, to Cape Farewell, Greenland. Normally, ice conditions would have made it inadvisable to approach Cape Farewell before mid-July. This year, however, all available information indicated that ice deterioration was about two weeks ahead of a normal season. Accordingly, the *Evergreen* departed Boston for the postseason cruise on the unusually early date of 23 June. The Bonavista triangle, including 30 stations, was occupied between the morning of 27 June and the early morning of 30 June. The Labrador Sea section, including 24 stations, was occupied between the morning of 1 July and the morning of 6 July. There were delays occasioned by heavy weather as follows: 16 hours on 4 July prior to station 6882, 5½ hours on 5 July following station 6883, and 5 hours on 5 July prior to station 6885. Of the last 5-hour delay only about 2 hours was on account of weather, the remaining 3 hours being to coordinate the approach to Cape Farewell with the best chance of good visibility. The final station was occupied just outside a coastal belt of sea ice 7½ miles off Cape Farewell.

The oceanographic work was under the supervision of Oceanographer Floyd M. Soule who was assisted by Lt. R. M. Morse. Other assistants in the observational work were Elwood C. Gray, aerographer's mate first class; William G. Carpenter, yeoman third class; R. J. Messier, seaman (during the first survey); D. C. Bailey, aerographer's mate first class (during the first and second surveys); Herbert A. Ashmore, aerographer's mate third class (during the first and second surveys); Herbert J. Spiegel, aerographer's mate third class (during the second and third surveys and the postseason cruise); Richard C. Norris, aerographer's mate first class (during the third survey and postseason cruise); and O. W. Warf, Jr., radarman third class (during the third survey and postseason cruise). Temperature and salinity observations were made at each of the 317 stations. At the 24 stations forming the section across the Labrador Sea the observations extended from the surface to as near bottom as was practicable. At the 10 stations forming the southern end of section W on the third survey the observations extended to 3,000 meters. At the remaining stations the observations were limited to the upper 1,500 meters. The intended depths of observation, in meters, were 0, 25, 50, 75, 100, 150, 200, 300, 400, 600, 800, 1,000, and thence by 500-meters intervals, except for the extra southerly extension of section W during the third survey where the depths of observation in the second 1,000 meters were 1,200, 1,400, 1,600 and 2,000 meters.

Temperatures were measured with protected deep sea reversing thermometers, mostly of Richter & Wiese manufacture but with some manufactured by Negretti & Zambra, G. M. Manufacturing Co. and Kahl Scientific Inst. Corp. Depths of observation are based on unprotected reversing thermometers made by Richter & Wiese and by Kahl. As in other years, a program of intercomparison of protected thermometers was carried out in the field measurements. The thermometers were used in pairs and one of each pair was shifted periodically so that the same thermometer was eventually paired with a number of other thermometers. From a total of 2,201 intercomparisons, the probable difference between the corrected readings of a pair of protected thermometers was 0.010° C. Of these comparisons, 280 involved thermometers having a range of +3° to +13° with a probable difference of 0.006°, 1,268 comparisons were between thermometers of range —2° to +8° and gave a probable difference of 0.009°, and 653 comparisons were between thermometers having a range of —2° to +20° or greater and gave a probable difference of 0.013°. As most of the observed temperatures listed in the Table of Oceanographic Data are the means of the corrected readings of a pair of thermometers and since many of the thermometers used had recent laboratory comparisons with thermometers tested by the National Bureau of Standards, it is considered that the tabulated observed temperatures are good to 0.01°C.

Salinities were measured with a Wenner salinity bridge. During the winter of 1957–58 an examination of a section extending eastward from the Grand Banks at about latitude 45° N., occupied by *Discovery II* on 16–18 April 1957 indicated a probable discrepancy of about 0.04°/₀₀ between salinities as determined by *Discovery II* and as determined on the Evergreen during a survey of the area which included a nearby section occupied 12–13 April 1957. It was learned that *Discovery's* salinities were in essential agreement with those determined by the Woods Hole Oceanographic Institution. A series of check measurements was therefore made to determine if the calibration curve for the Coast Guard's Wenner bridge were in error.

Three composite carboys of seawater were prepared by the Woods Hole Oceanographic Institution and designated numbers 1, 5, and 7. Another carboy of actual seawater collected from the surface at about 50° N., 49° W., about 7½ months earlier (25 July, 1957) was made available by the Coast Guard Oceanographic Unit. This carboy, designated C–1–58, was a polyethylene plastic container. The other carboys were glass and had been filled with water stored for varying periods in glass containers. None of the carboys had special seals until the beginning of the measurements, when C–1–58 was placed under an oil seal.

The WHOI laboratory ran 20 titrations on carboy 1, 14 titrations on carboy 5, 9 titrations on carboy 7 and 10 titrations on carboy C–1–58. The carboys were also measured on the WHOI bridge and on the CGOU bridge. Mean values determined were as follows:

Carboy	*Titration*	*WHOI bridge*	*CGOU bridge*
1	35.04_9	35.06_5	35.03_4
5	35.50_1	35.53_2	35.49_6
7	34.18_6	34.21_8	34.19_1
C–1–58	34.45_7	34.47_6	34.44_6

Whence the following differences were obtained:

Carboy	*Titration-WHOI bridge*		*Titration-CGOU bridge*	*WHOI bridge CGOU bridge*
1	-0.01_6		$+0.01_5$	$+0.03_1$
5	-0.03_1		$+0.00_5$	$+0.03_6$
7	-0.03_2		-0.00_5	$+0.02_7$
C–1–58	-0.01_9		$+0.00_1$	$+0.03_1$
		aver.	$+0.00_6$	$+0.03_1$

Since both the CGOU bridge (model 4) and the WHOI bridge (Bradshaw and Schleicher) were Wenner bridges they were both more precise than titration, which is reflected in the smaller variation in the difference between the two bridges than between either bridge and titration. However, neither makes direct measurements of salinity and each determines the electrical resistivity of a sample of unknown salinity in terms of that of a sample of known salinity, and hence depends upon a standardization. In the case of the CGOU bridge this is accomplished by the construction of a calibration curve on the basis of a number of samples of actual seawater having a range of salinity and measured on the bridge and by titration against Copenhagen standard water. In the case of the WHOI bridge the standardization is accomplished by using the Copenhagen standard water as a conductivity standard, assuming its conductivity is the same as the conductivity of a sample of actual seawater whose chlorine content is the same as the stated chlorine of the Copenhagen standard water.

The calibration curve of the CGOU bridge used in the above measurements was determined prior to the beginning of the 1957 season. In view of the foregoing, the same curve, with a constant adjustment of 0.006°/₀₀, to accommodate the above difference between titration and bridge measurements, was used in 1958. In spite of this, however, there still appears to be a discrepancy between the *Evergreen* salinities and those determined by the Woods Hole Oceanographic Institution if one may judge by comparing the potential temperature-salinity relationship of the deeper samples beneath the Atlantic Current south of the Grand Banks in May 1958, with that found by WHOI in the deep water west of Bermuda. Aside from this unsolved question of perhaps 0.04°/₀₀ discrepancy in the absolute values of salinity, we may state that the precision of the observed salinities listed in the Table of Oceanographic Data is ± 0.005°/₀₀ although the accuracy is only that of silver nitrate titration.

In the field measurements the bridge was standardized with water from an oilsealed carboy of actual sea water. At least twice during each salinity run, Copenhagen standard water of the batch P23 was measured as an unknown. At the end of each survey these measurements were used to determine whether a correction to the salinities for the survey was required. The corrections thus indicated were as follows: first survey — 0.00_2°/₀₀ ; second survey — 0.00_1°/₀₀ ; third survey +0.00_3 °/₀₀; postseason cruise — 0.00_6°/₀₀ . The corrections for the season's surveys were negligible and for these no corrections were applied to the values tabulated. The correction of — 0.00_6°/₀₀ has been applied to the salinities for the postseason cruise.

Figures 19 through 22 show, in chronological order, the dynamic topography found during the three surveys made during the season and during the occupation of the Bonavista triangle on the postseason cruise. Figure 23 shows the monthly mean barometric pressure at seal level in the North Atlantic for the months of January, February, and March 1958 in comparison with the normal[2] barometric pressure distribution for these months. It will be seen that throughout this protracted period the Azores high, which usually controls the North Atlantic area, was very weak and displaced toward the southeast and that the atmospheric circulation was dominated by a vigorous low in the vicinity of Newfoundland. The resulting easterly winds experienced along the Laborador coast, and to a lesser extent the Newfoundland east coast, were expected to have a pronounced effect on the currents in the Grand Banks region.

The abnormal wind pattern ended just prior to the beginning

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[2] Normals are from U.S. Weather Bureau Technical Paper No. 21. Normal Weather Charts for the Northern Hemisphere, Washington Oct 1952.

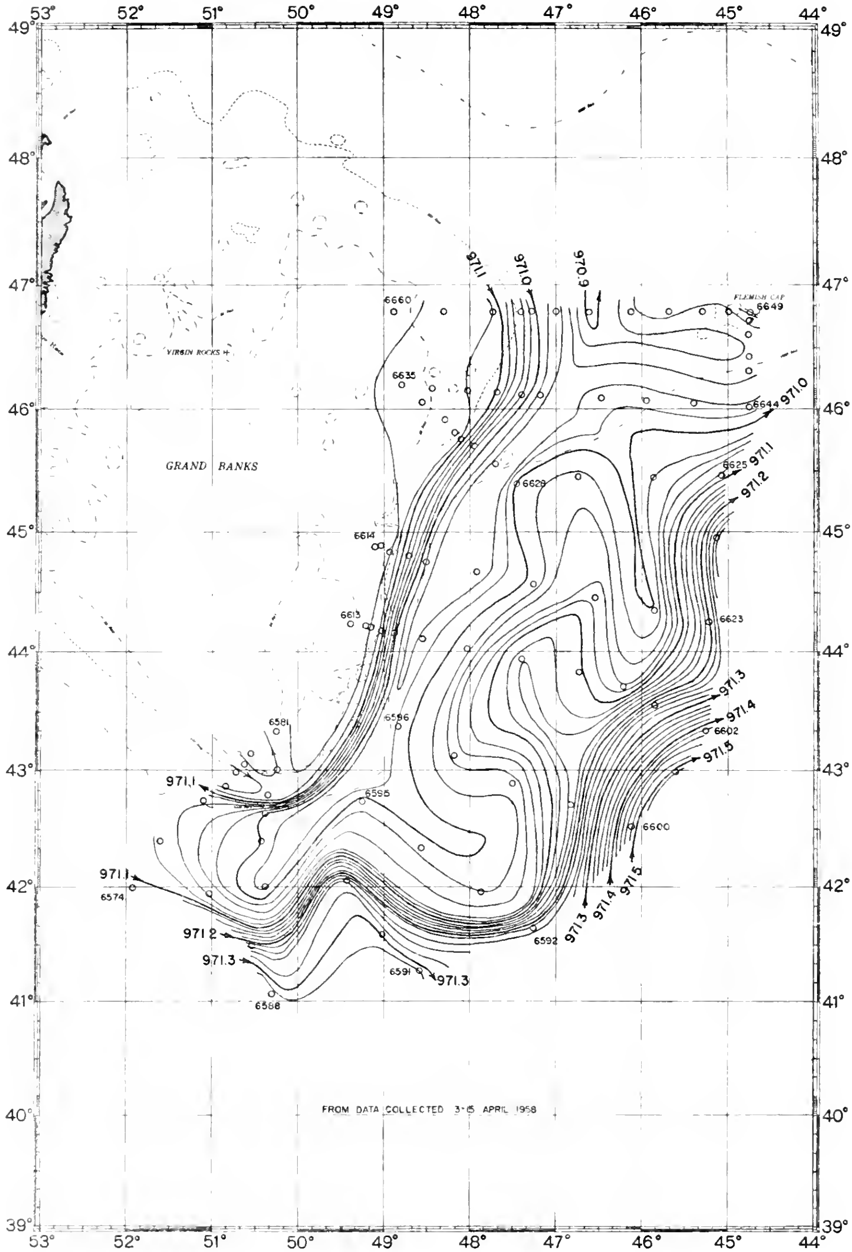

FIGURE 19.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 3-15 April 1958. Oceanographic station positions are indicated and the station numbers given at turning points.

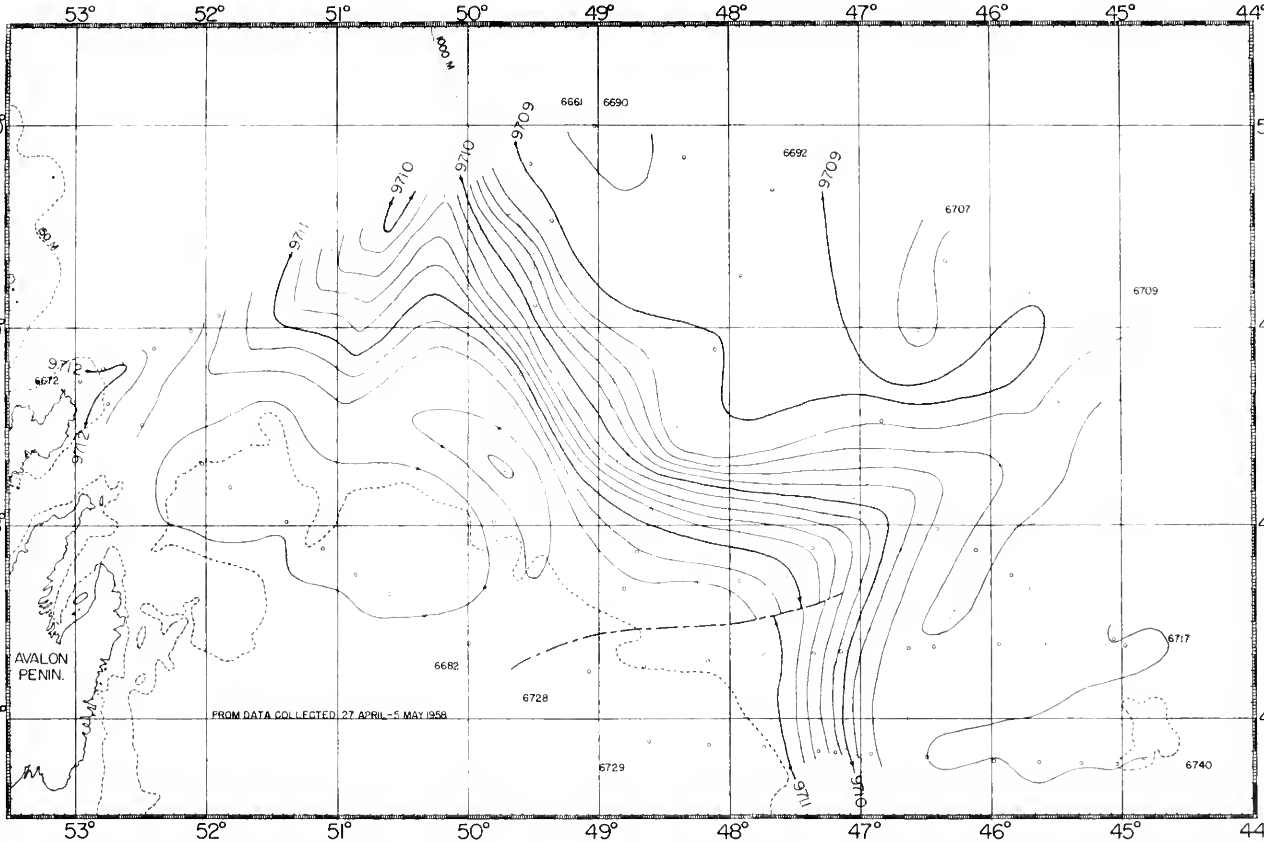

FIGURE 20.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 27 April-5 May 1958. Oceanographic station positions are indicated and the station numbers given at turning points.

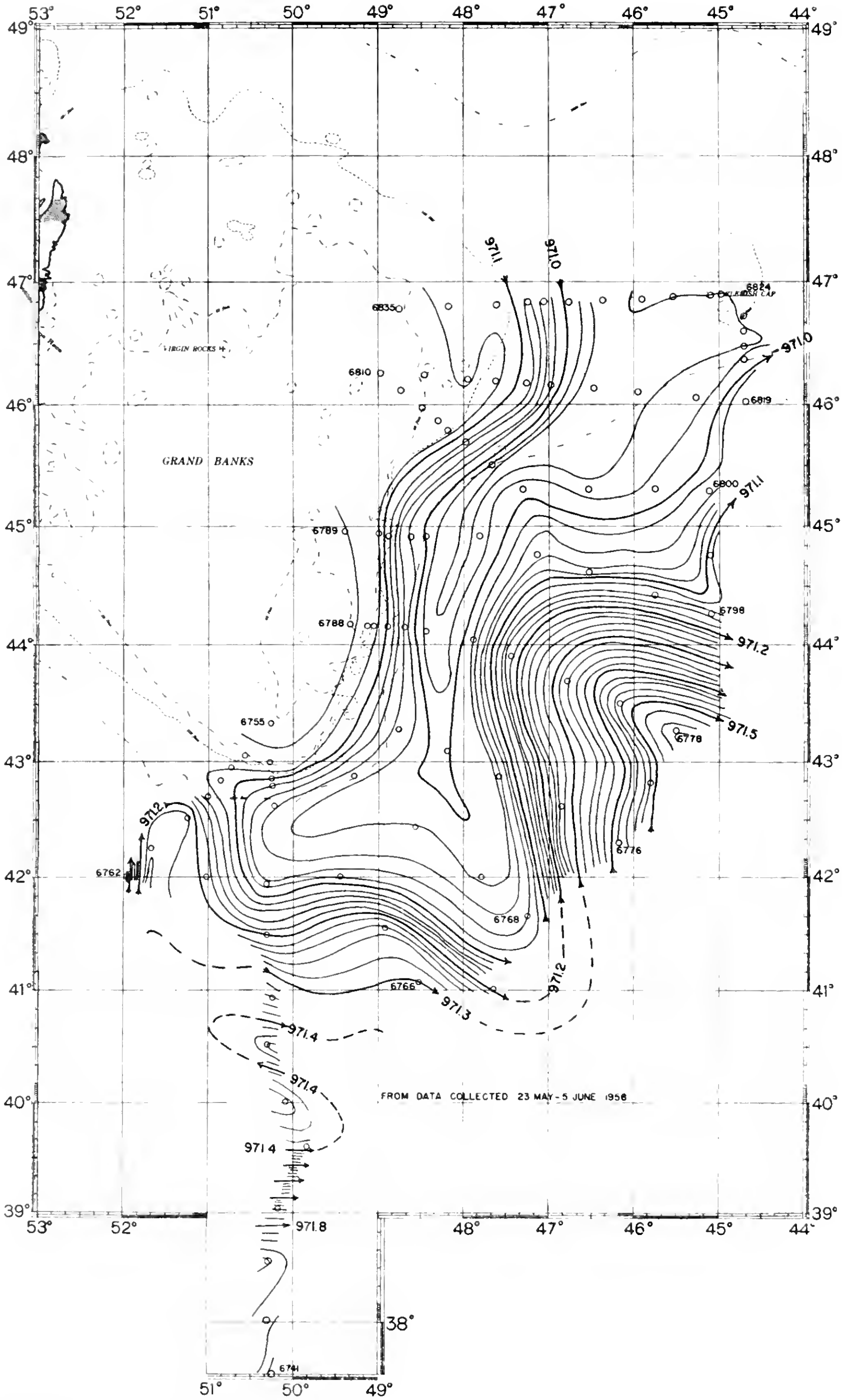

FIGURE 21.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 23 May-5 June 1958. Oceanographic station positions are indicated and the station numbers given at turning points.

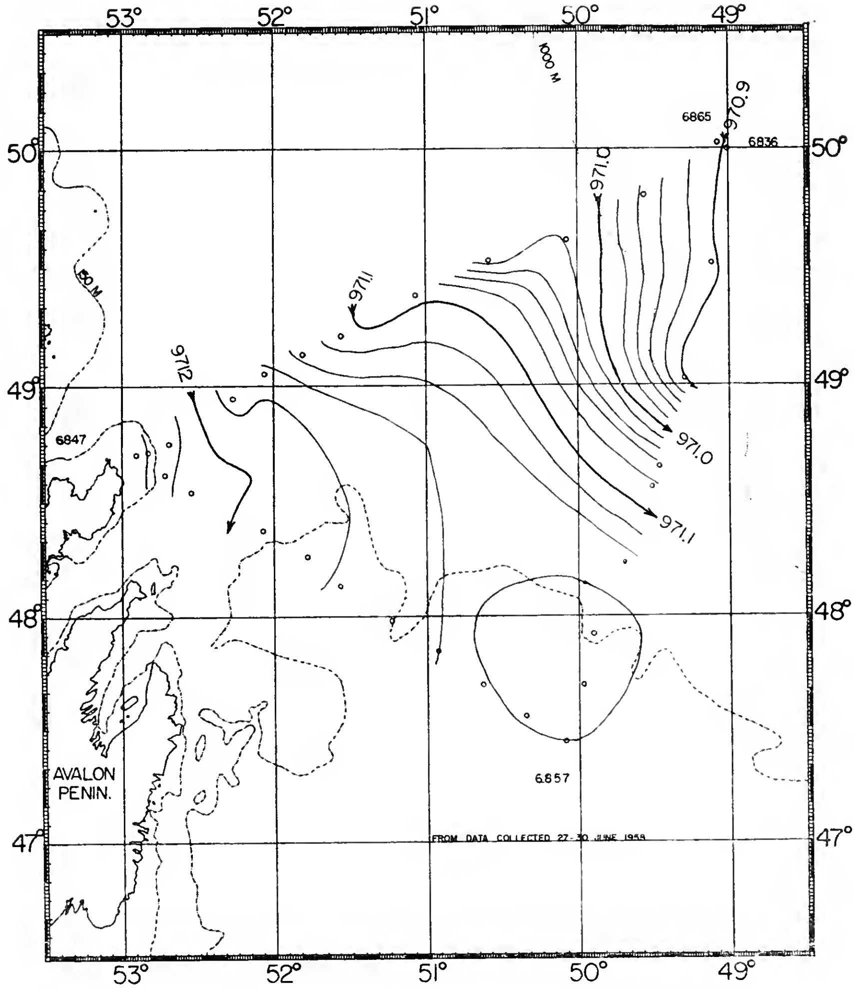

FIGURE 22.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 27-30 June 1958. Oceanographic station positions are indicated and the station numbers given at turning points.

of the 1958 survey work. During the first survey the warm water found in the surveyed area was not as warm as usual but it was found over a greater geographical extent than usual. The coldest water of the Labrador Current was about a degree warmer than usual but cold water extended to greater depths than usual. Salinities at intermediate depths down to at least 1,000 meters were fresher than usual. Yet the resulting density distribution produced a Labrador Current which, as seen from figure 19, was rather broad at the northern end of the surveyed area and narrowed with increasing velocity toward the Tail of the Banks.

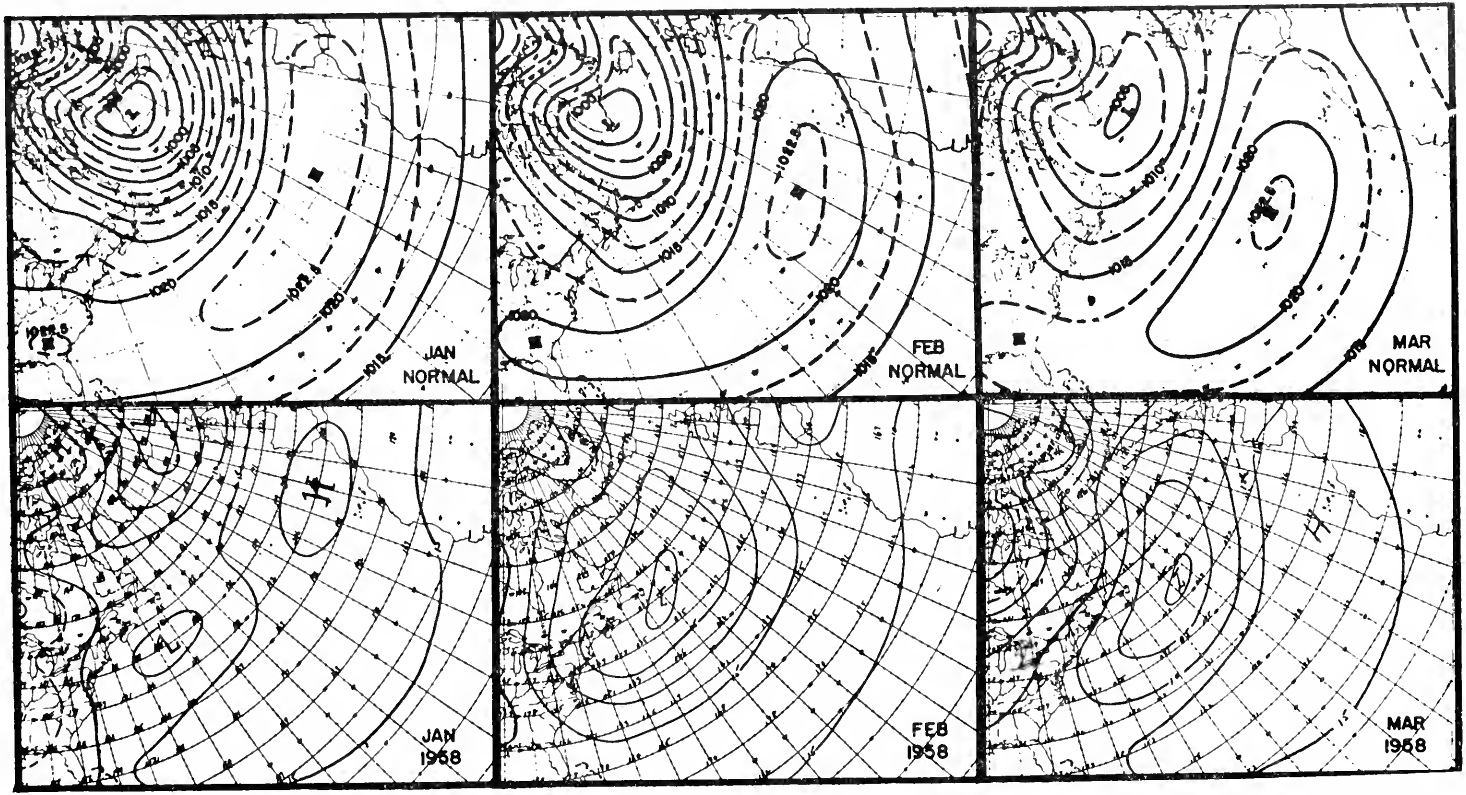

FIGURE 23.—The monthly mean barometric pressure distribution in the North Atlantic during January, February and March, 1958, compared with the normal distribution.

During the second survey (fig. 20) it was again observed that the minimum temperature of the Labrador Current was warmer than usual and that the salinity of the intermediate water down to 1,000 meters was fresher than usual. The use of the Helland-Hansen and Nansen method of arriving at the dynamic heights of stations where the depth of water is less than that of the reference surface involves some uncertaintiy depending upon the construction of a vertical section of anomaly of specific volume for the extrapolated values of the anomaly along the bottom from the shallow station to the depth of the reference surface. The shallow ends of such sections are cross checked by providing two or more approaches to guard against gross errors in the construction of the anomaly sections and to produce a consistent network survey. In the construction of figure 20 such cross checks showed an irreconcilable discrepancy of about 32 dynamic millimeters between the two southernmost sections and the area to the northwestward. The figure has been drawn with the discontinuity indicated by a dashed line and it has been assumed that an adjustment between two steady states occurred in the approximately 3-day interval between the occupation of the southern sections and the stations to the northwest of them. The current pattern is similar on each side of the discontinuity but the shallow water velocities are different.

It would appear from figure 20 that an exceptionally large part of the surface circulation of the Labrador Current in the Bonavista triangle was following the eastern branch. An analysis of the volume transports past the three sides of the triangle, however, indicates that 90 percent of the current was following the eastern branch. This is only slightly more than the seasonal normal of 88.3 percent. The seasonal normals, however, are based on data which include only one occupation at a seasonal date earlier than that of the second survey of 1958, and are consequently less reliable than they are for somewhat later seasonal dates. In the eastern part of the surveyed area figure 20 indicates that the eastern branch of the Labrador Current suffered but little loss from water recurving northward north of Flemish Cap.

The dynamic topography found during the third survey is shown in figure 21. As in other current charts of the Grand Banks region, a reference surface of 1,000 decibars has been used in this figure to permit the presentation of the extra-southerly section and the rest of the survey in a single chart. It is realized that this reference surface is too shallow to give accurate values of current velocity in the vicinity of the southern section but an inspection of the data indicates the current pattern is similar when the topography is referred to the 2,000-decibar surface although use of the deeper reference surface gives higher velocities.

The southern edge of the eastward flowing current was found at about 38°30′N. A reversal of direction was observed between 40° N. and 40°30′N. This appears to be associated with a meander to the northwestward and is identified with the current pattern found between 42° N. and 42°30′N. between 51° W. and 52 W. It is interesting to note that the highest dynamic height found in the Atlantic Current in the eastern part of the surveyed area (station 6778 in the vicinity of 43°15′N., 45°30′W.) is found in the middle of the swiftest band of current between stations 6744 and 6745 on the southern section. Compared with the first survey, the Labrador Current lost the high velocities found earlier near the Tail of the Banks but its temperature minimum remained decidedly warmer than normal, the coldest temperature observed being —1.00°, found in the northernmost section.

The dynamic topography shown in figure 22 is that found during the postseason cruise occupation of the Bonavista triangle. Compared with the similar area of figure 20, there was a northward and seaward shift of the current pattern. There is usually a seasonal decrease in the proportion of the Labrador Current following the eastern branch. This decrease was somewhat greater than normal in 1958. It dropped from 90 percent during the second survey (compared with a seasonal normal of 88.3 percent) to 82½ percent at the time of the postseason cruise (compared with a seasonal normal of 84½ percent). The minimum observed temperatures along the three sides of the triangle were close to normal during the postseason cruise although the coldest temperature occured along the northwestern side instead of the southwestern side where it usually is found.

The first and third surveys took place in the region of the Grand Banks from which sufficient data are available to permit a comparison of the temperature-salinity characteristics of the water masses found there in 1958 with the mean T-S characteristics for earlier years. Labrador Current water and Atlantic Current water are water masses found in this region and these parent water masses usually mix in a sufficiently constant proportion to produce a mixed water which may be regarded as a virtual water mass. Figure 24 shows the relationships found in 1958 as solid line curves. The broken lines represent the 11-year means for the period 1948–58.

Of the three the mixed water is least definite and some stations are found where the mixing is atypical and data from these stations are excluded in determining the T-S relationship of the

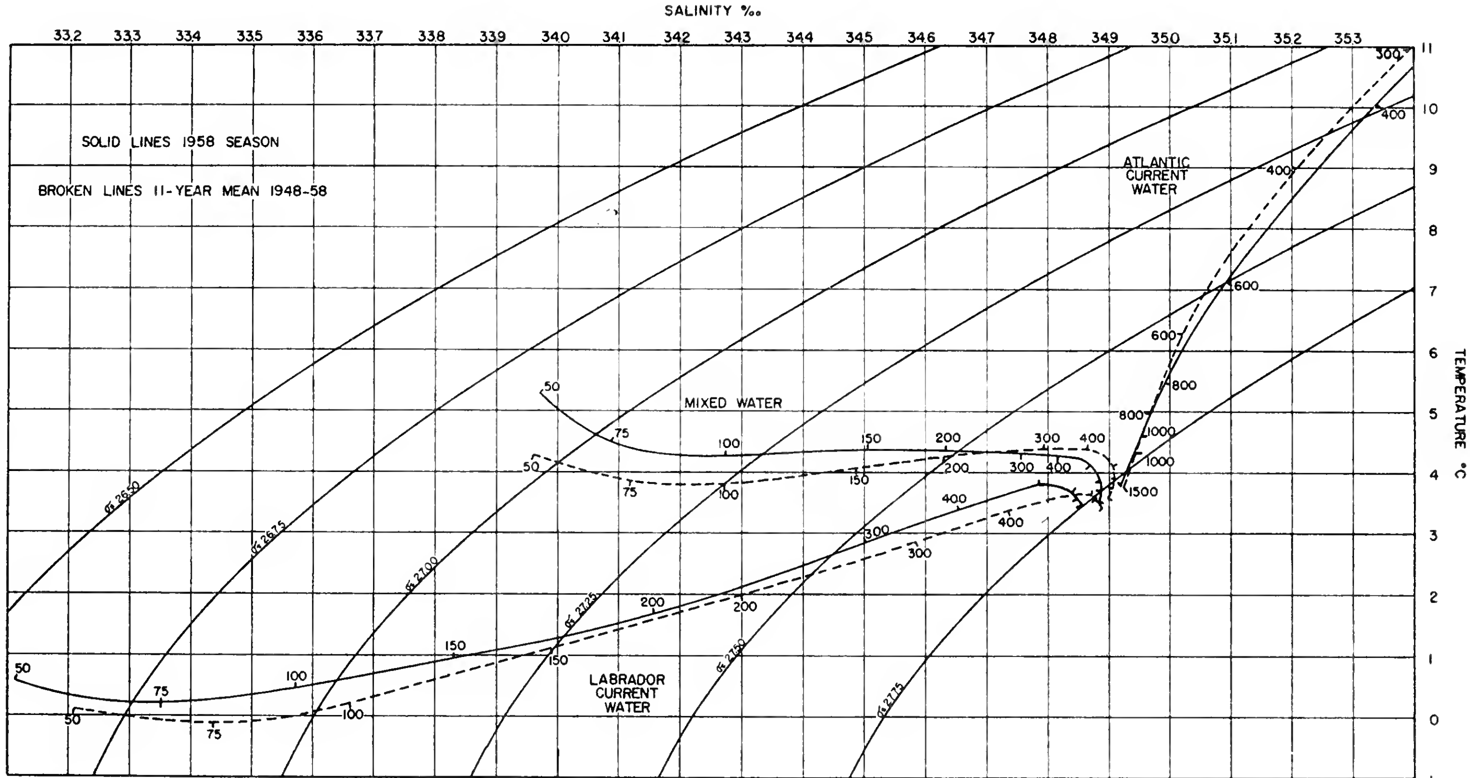

FIGURE 24.—Temperature-salinity relationships for Labrador Current water, Atlantic Current water and mixed water found in the Grand Banks region. Solid lines show conditions found during 1958 and broken lines represent the 11-year means for the period 1948-58. An approximate depth scale in meters is given.

mixed water. In 1958 there were a number of such stations showing atypical mixing, especially during the third survey. By far the greatest number of these stations showed mixtures intermediate between typical mixed water and Atlantic Current water. The curve for the 11-year mean for the Atlantic Current water is not accurately representative since in most years the surveys do not include sections which completely cross this current. All of the surveys do result in a complete and representative sampling of the Labrador Current and consequently fluctuations found in this water mass are considered to be the best indicator of changes taking place in the Ice Patrol area.

Figure 24 shows lighter than average water present in 1958 at each level and for each water mass. In the Atlantic Current water above about 1,000 meters the effect of higher than average salinities was outweighed by the higher temperatures. In the mixed water the lower densities were largely the result of higher temperatures in the upper 200 meters (with about average salinities) while below 200 meters colder temperatures could not balance the lower than average salinities. In the Labrador Current water the salinities were below average at all levels and the temperatures were above average except at the 150, 200 and 300-meters levels where the temperatures were colder than average.

Figure 25 shows the departures from average of the temperatures and salinities in the Labrador Current water and their approximate contributions to the departures from average density.

Starting with the abnormal onshore wind system and considering that this moved surface and near surface water in to the beach forcing a downward and seaward circulation along the bottom at least to the depth of the shelf (ca 200 meters), this would set up temporary instabilities the erasure of which, through the resulting mixing, would tend to wipe out the temperature minimum of the Labrador Current (50 to 100 meters) and lower the temperature of the water at levels immediately beneath the normal minimum. Such an hypothesis would explain the shape of the curves in figure 25 down to about 300 meters, and except for the small inversion in the salinity anomaly curve between 300 and 400 meters, might satisfy the deeper part of the salinity anomaly curve if further downward movement resulted from the mixing near the upper part of the continental slope. It does not, however, offer a clear explanation of the pronounced positive temperature anomaly at 600 meters.

The temperature maximum of the Labrador Current occurs at a depth of about 600 meters and is a part of the warm water tongue, which in a vertical section across the Labrador Current characteristically extends downward toward the beach at inter-

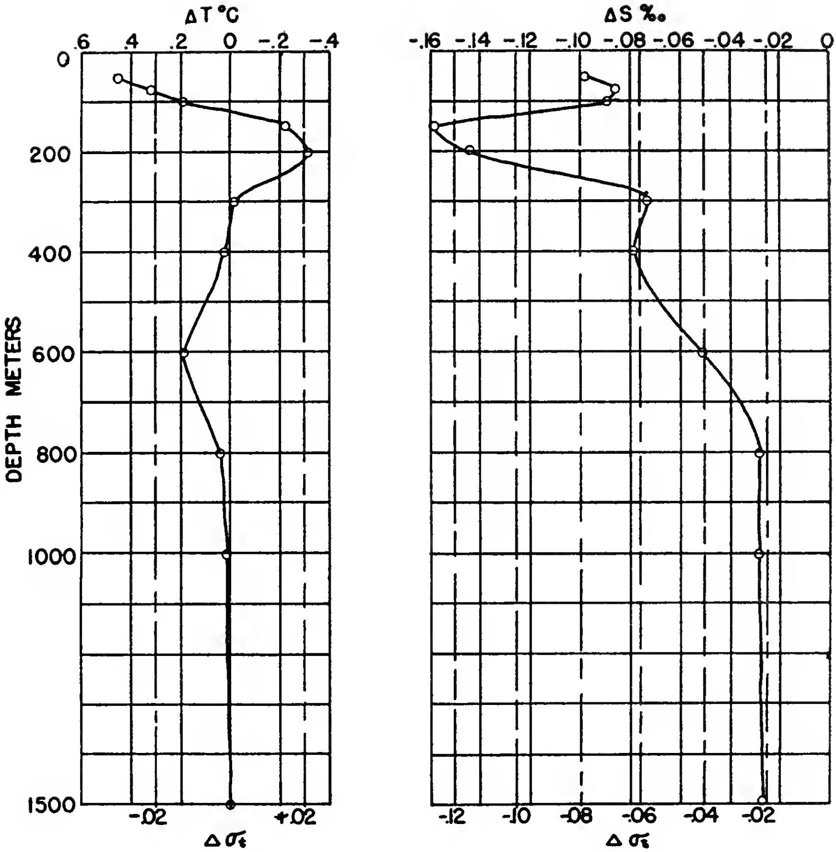

FIGURE 25.—Departures of temperature and salinity of the Labrador Current in 1958 from the 11-year means 1948-58. Dashed vertical lines indicate the approximate effect on density.

mediate depths, and is considered to be the combined result of cabbeling and isentropic movement along the offshore margins of the Labrador Current. It would appear from the results summarized in figure 25 that these processes of formation of the warm intermediate water were also stimulated by the onshore winds.

Past bulletins have given the position of the cold wall for each survey of the area southeastward of the Grand Banks in terms of the area between the cold wall and the following rhumb lines: the 45th parallel from the cold wall to 45° N. 49°W.; the 49th meridian from 45° N. to 43° N.; a line from 43°N. 49 W. through 42°N. 47°W. extended to the cold wall. Using the same criterion as in the past for the location of the cold wall (the horizontal projection of the line along which a temperature of 6 corresponds to a salinity of 34.95°/$_{oo}$), the area between the cold wall and the rhumb lines was 7.75 $\times$ 10^4 square km during the first survey and 8.31 $\times$ 10^4 square km during the third survey. These areas are presumed to represent the net effect of the Labrador Current tending to enlarge the area, and of the Atlantic Current tending to reduce the area. The volume transport of the Labrador Current passing section U (about 45°N.) was 5.50 $\times$ 10^6 cubic m/sec at the time of the first survey and was 4.29 at the time of the third survey.

In the general picture of the surface circulation of the North Atlantic a meridional section from the southern end of the Grand Banks to the central part of the North Atlantic eddy would cross the eastward flowing Atlantic Current, the westward flowing Labrador Current and branches of these. In the diagram shown in figure 26 an important part of the Atlantic Current crosses the section as A. Some of A recurves toward Bermuda as B, some recurves northwestward as D and some continues to the eastward as C without again crossing the section. D again recurves to the eastward and is joined by a part G of the Atlantic Current which recurves northwestward before reaching the longitude of the section. G may be considered to include a small amount of water from the United States and Canadian shelves and G and D together make up E. The Labrador Current F crossing the section to the westward recurves and recrosses the section to the eastward, now, with small amounts of G and D, as mixed water paralleling and on the northern side of E. E and C, then, represent the net contribution of the Atlantic Current to the eastward of the Grand Banks region.

There are geographical shifts in this pattern so that a section at a fixed longitude may cross different relative parts of the pattern at different times. Ships of the International Ice Patrol have occupied this section on three occasions. In 1938 the *General*

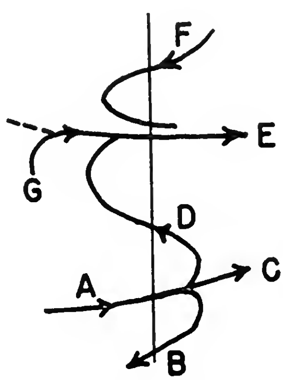

FIGURE 26.—Schematic diagram of currents crossing the meridian of 50°15′W south of the Grand Banks.

Greene ran the section at about the time the *Altair* and *Armauer Hansen* were conducting their work in the vicinity of the Azores in connection with the International Survey of the Gulf Stream Area. In 1950 the *Evergreen* occupied the section at about the time of the multiship Operation Cabot to the westward of the Grand Banks. In 1958 the *Evergreen* occupied the section as a part of the activity of the International Geophysical Year. Figures 27, 28, and 29 show, respectively, the temperature, salinity and velocity distribution found in 1958. In figure 29 the velocities are referred to the 2,000-decibar surface.

The dynamic topography of the sea surface relative to the 1,000-decibar surface is shown in figure 21. As mentioned earlier, the 1,000-decibar surface gives a fair representation of the current pattern in the vicinity of this section but the velocities are greater than indicated by this relative topography. Current directions shown in figure 21 are in good agreement with those derived from GEK current fixes obtained about every 10 miles along this section. In figure 27 the greater part of the section is dependant upon the observations from reversing thermometers at the stations. In the upper 200 meters, however, these observations were supplemented by bathythermograph casts made about every 5 miles between stations from station 6741 to station 6752. The most pronounced cold wall was found near station 6749 with the greater part of the Atlantic Current and its branches being found south of this station. However, at station 6750 the water below about 400 meters was Atlantic Current water. Southward of station 6749 the inclination of the isotherms is a good indication of the direction of flow across the section and the components E, D, A, and B of figure 26 are apparent. Except for the water above the Grand Banks, the thermal structure of the Labrador Current F and the eastward moving mixed water is more complex and the circulation picture is better shown by the velocity section (fig. 29).

The salinity distribution (fig. 28) shows a pattern similar to that presented by the temperature distribution. The deeper observations of salinity have been plotted against potential temperature in figure 30. Here the individual observations are given and are identified with the last two digits of the station numbers of their origin, station 6741 being the southernmost and 6750 being the northernmost of this series. From this small number of observations there is no clear cut grading of salinity for a corresponding potential temperature along the section. There is apparent, however, the difference of about 0.04°/$_{oo}$ in salinity between the observations of the *Evergreen* and those of the

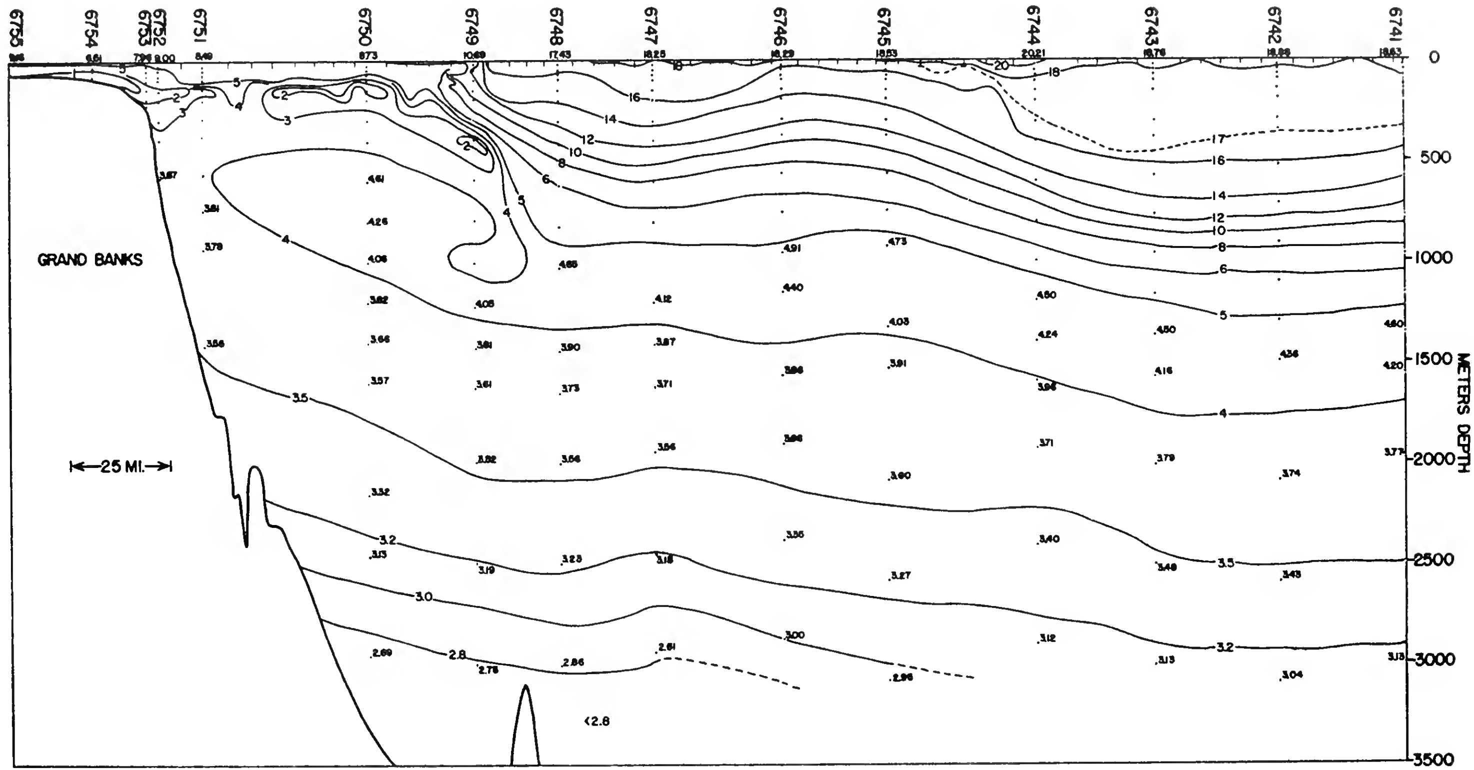

FIGURE 27.—Temperature distribution along meridional section at 50°15′W from data collected 23-26 May 1958.

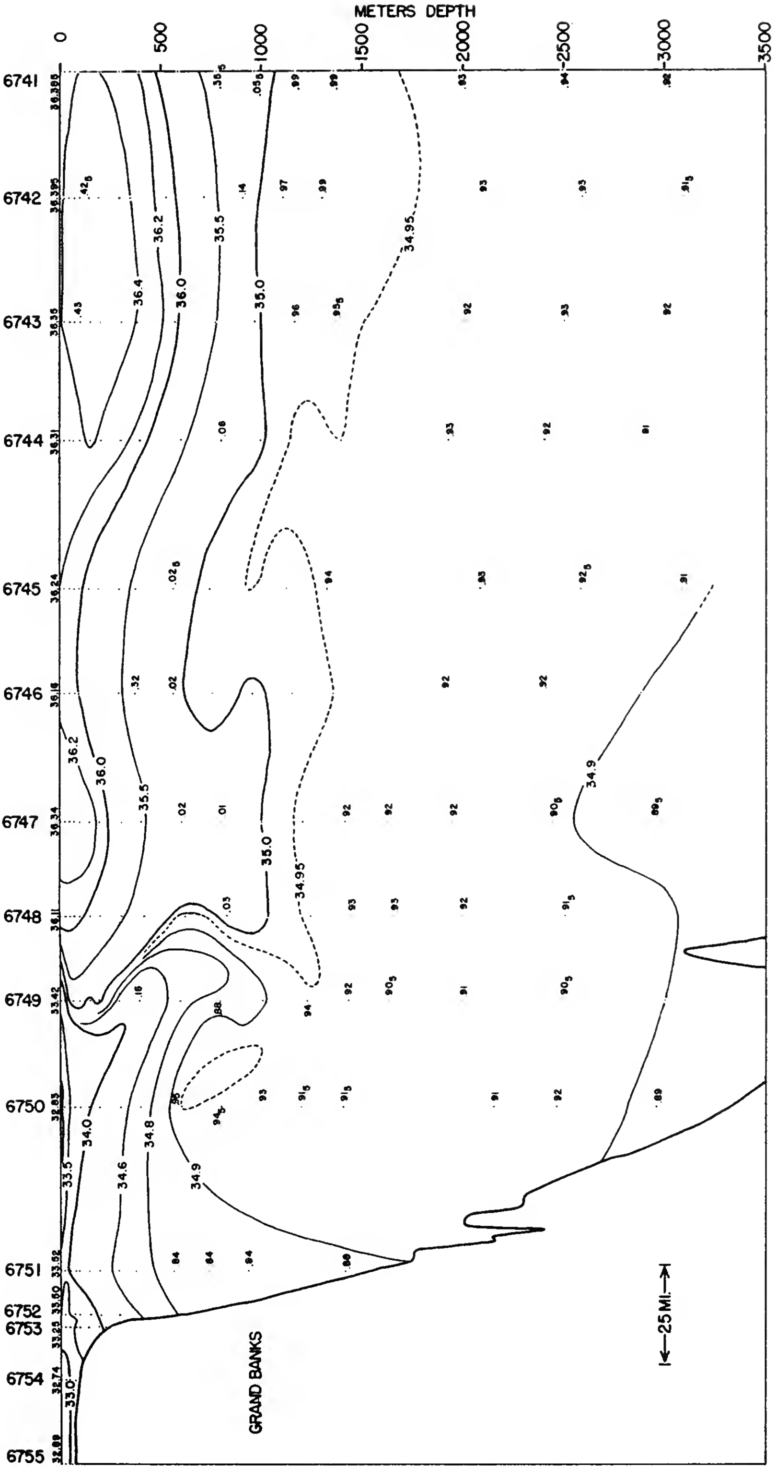

FIGURE 28.—Salinity distribution along meridional section at 50°15′W from data collected 23-26 May 1958.

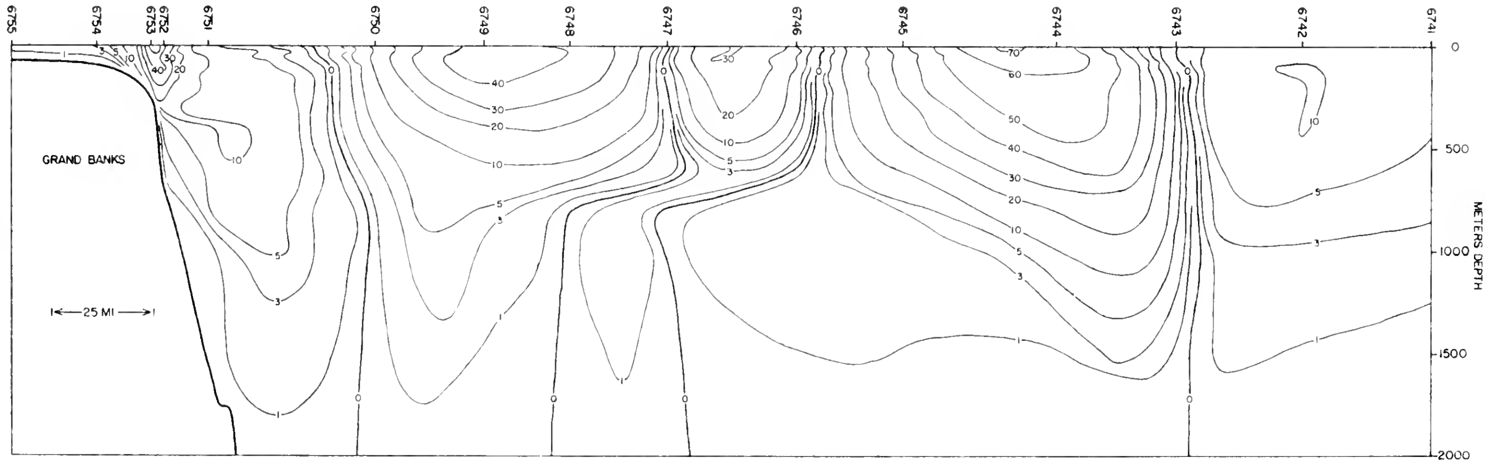

FIGURE 29.—Velocity distribution along meridional section at 50°15′W from data collected 23-26 May 1958. Velocities are referred to the 2000-decibar surface.

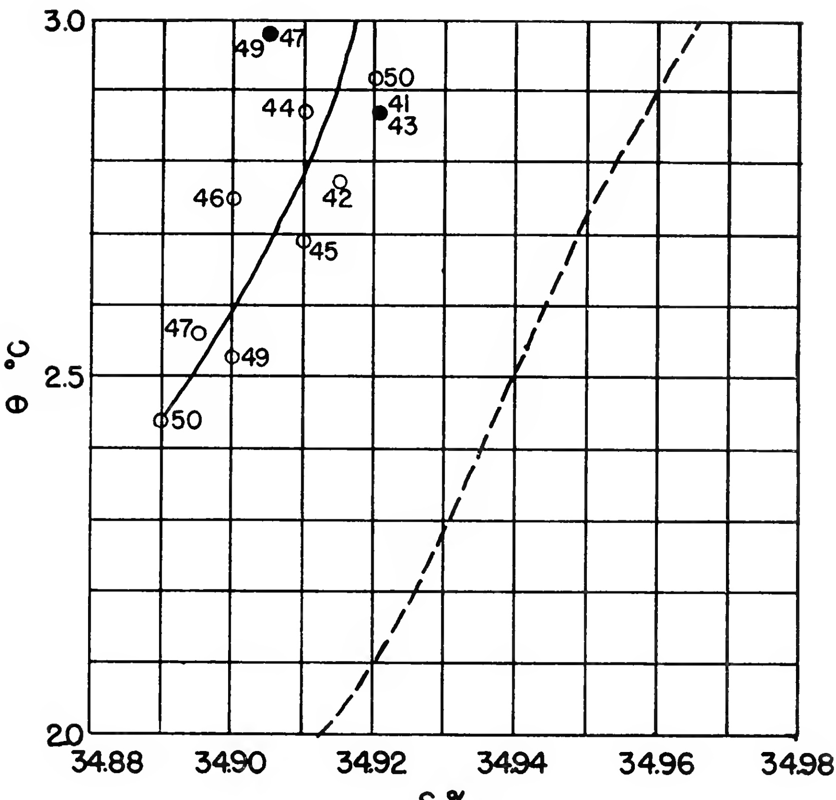

FIGURE 30.—Potential temperature-salinity relationship found beneath the Atlantic Current south of the Grand Banks 23-26 May 1958 (solid line) compared with the relationship reported by the Woods Hole Oceanographic Institution for the deep water west of Bermuda (broken line). Last two digits of station number identify location of observation.

Woods Hole Oceanographic Institution, as mentioned in the discussion of methods of measurement.

An inspection of figure 29 will show the components indicated in figure 26. The southernmost easterly flowing current is A in figure 26. This was computed to have a volume transport (expressed in millions of cubic meters per second) of 48.6. South of this is the westerly return toward Bermuda, B. The section did not completely cross B. By computation the part that is on the section is 7.6 and it is estimated that another 2.2 lies south of the section for an estimated total B of 9.8. Northward of A a westerly flowing band represents the part of A which recurves to the northwestward as D. By computation this amounted to 5.6. By subtraction of D and B from A the southerly contribution to the eastward, C, was 33.2. The northernmost band of current, flowing westward, is the Labrador Current, F. Some uncertainty arises in this part of the section where the motionless surface is probably inclined. With 1,000 decibars as the reference surface F was 3.3, but with reference to the 2,000-decibar surface F was computed as 6.7. To conform to the rest of the section the latter figure is used here. Just south of F the easterly band of current was made up of the returning F plus E, whence by difference E was 13.2, and the two contributions of Atlantic Current to the eastward of the section were E (13.2) and C (33.2) for a total of 46.4.

For the occupations of 1938 and 1950 not all of the individual components shown in figure 26 can be derived. For comparison, however, the following recapitulation is given.

	1938	1950	1958
A+F+E−D	(computed)......58.6	(56.4) computed plus 3.5 estimated). 59.9	(computed).........48.6
A	....		
D	(by planimeter).. 0.1	(computed)..........18.5	(computed)......... 5.6
E+F	....	(computed)..........31.4	(computed).........19.9
F	(computed)...... 2.8	(computed).......... 2.0	(computed)......... 6.7
E	....	(by difference).......29.4	(by difference)......13.2
B	(computed)......21.7	(completely south of section).	(7.6 computed plus 2.2 estimated). 9.8
C	....	....	(by difference)......33.2
G	....	(by difference).......10.9	(by difference)...... 7.6
E+C	(by difference)....24.1	.....................*55.0	(by difference)......46.4
C+B	....	(by difference).......41.4	(by difference)......43.0
E+C+B	(by difference)...45.8	(by difference).......70.8	(by difference)......56.2

* Applying mean B for 1938 and 1958 to E+C+B for 1950.

The foregoing shows considerable variation in volume transport for the different years. A most significant value is that of E+C, the combined contribution of the Atlantic Current to the eastward of the Grand Banks. The figure of 55.0 for the 1950 occupation, derived by difference using the mean of the value of B for 1938 and 1958 is highly questionable and is shown only to point out what is also apparent from the other 1950 values, that the volume transport in 1950 was exceptionally large. The tabulation also seems to indicate that 1938 was a year in which the volume transport to the eastward of the Grand Banks was small and the return toward Bermuda was large.[3]

In 1958, the volume transport to the eastward was intermediate between the 1938 low and the 1950 high values. The heat transport of component E was 159.4 million °m^3/sec with a mean temperature of 12.1° and the heat transport of component C was 447.0 with a mean temperature of 13.5°. The consequent combined contribution to the eastward of the Grand Banks, then,

[3] As 1938 was the year in which *Altair* and *Armauer* Hansen conducted their intensive survey work in the vicinity of the Azores and as these observations were heavily weighted by Sverdrup, Johnson, and Fleming in their transport balance of the North Atlantic: (The Oceans, Prentice-Hall, New York 1942, fig. 187 page 684) it seems that the transports shown in that figure for the North Atlantic Current are somewhat too small. In the same figure the value of 6 million m^3/sec for the Labrador Current is too large to be representative, 4 being more nearly an average value.

(E+C) was 606.4 with a mean temperature of 13.1°. In arriving at the heat transport figures the same procedures of estimates and differences used in deriving the volume transports above were followed.

Certain sections across the Labrador Current have been repeatedly occupied in connection with the routine current surveys of the Grand Banks region and on the postseason cruises. The velocity and temperature distribution in these vertical sections has been studied in some detail and over the years the accumulated data have permitted the development of tentative seasonal variation relationships for some of the sections for a part of the year. The locations of the sections occupied in 1958 and subjected to detailed analysis are as follows: Sections NW, SW and SE are the northwestern, southwestern and southeastern sides of the Bonavista triangle which is defined by its corners located at 50° N., 49° W., 47°20′N., 50° W., and just off Cape Bonavista, Newfoundland. Section H is roughly parallel to the southeastern side of the Bonavista triangle and extends north-northeasterly from about 47°10′N., 49°15′W. Section G extends northeasterly from about 47°10′N., 48°40′W. Section F_2 is an east-west section between the Grand Banks and Flemish Cap along the parallel of 47°15′N. Section F is similar to F_2 but about 30 miles farther south. Section T extends southeasterly from about 46°20′N., 49°00′W. Section U extends easterly from the Grand Banks at about 45°N. Section W extends southerly from the Grand Banks along the meridian of 50°15′W. The South Wolf Island section extends northeasterly from South Wolf Island, Labrador and is a part of the section across the Labrador Sea from South Wolf Island to Cape Farewell, Greenland.

Tentative seasonal normal relationships for the West Greenland Current off Cape Farewell were published in bulletin 35 of this series. The seasonal normal relationships for the Labrador Current which have been developed previously were published as follows:

Sections T, U and W	bulletin No. 36 (season of 1950)
Sections NW, SW and SE	bulletin No. 39 (season of 1953)
Sections F and G	bulletin No. 42 (season of 1956)

Insufficient data are at hand for the development of seasonal normals for sections H and F_2. Shown herewith in figure 31 are the tentative seasonal normal relationships for the South Wolf Island section.

In 1958 there were 19 occupations of such sections across the Labrador Current. The results are summarized below in table 1. In this table, as well as in the text, the volume transport is given in millions of cubic meters per second, the mean temperature and

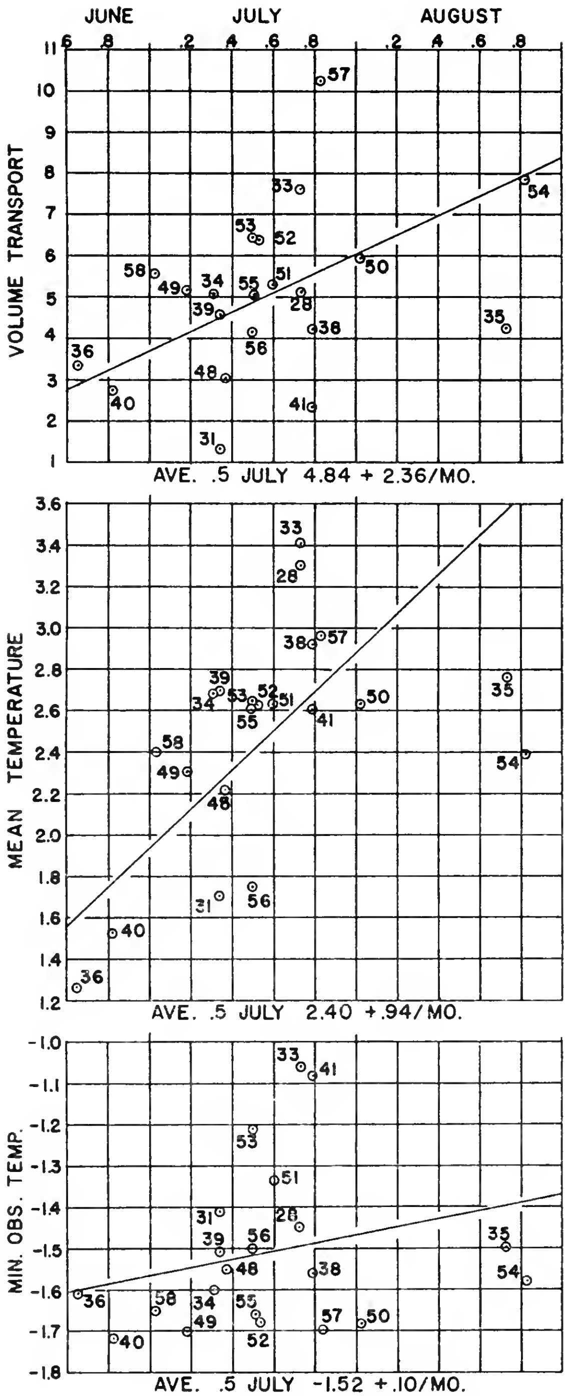

FIGURE 31.—Tentative normal seasonal change in volume transport, mean temperature and minimum observed temperature of the Labrador Current off South Wolf Island, Labrador.

Table 1.—Summary of Velocity Sections Across the Labrador Current Occupied in 1958

Section	Volume Transport			Mean Temperature			Minimum Observed Temperature			Heat Transport		
	1958	Normal	Anomaly	1958	Normal	Anomaly	1958	Normal	Anomaly	1958	Normal	Anomaly
First survey:												
F	5.14	2.73	+2.41	2.19	1.56	+0.63	−0.53	−1.26	+0.73	11.25	4.26	+6.99
T	4.66	3.33	+1.33	2.13	1.95	+0.18	−0.39	−1.40	+1.01	9.92	6.49	+3.43
U	5.50	5.31	+0.19	1.63	1.51	+0.12	−0.30	−1.23	+0.93	8.96	8.02	+0.94
W	4.56	4.24	+0.32	2.82	2.04	+0.78	−0.05	−0.51	+0.46	12.84	8.65	+4.19
Second survey:												
NW	4.23	3.09	+1.14	1.37	0.81	+0.56	−1.57	−1.79	+0.22	5.81	2.50	+3.31
SW	0.54	0.30	+0.24	−0.55	−0.98	+0.43	−1.48	−1.62	+0.14	−0.30	−0.29	−0.01
SE	4.84	2.82	+2.02	1.28	1.29	−0.01	−1.09	−1.46	+0.37	6.21	3.64	+2.57
H	4.85			1.63			−0.73			7.90		
G	4.73	3.61	+1.12	1.45	1.58	−0.13	−0.74	−1.22	+0.48	6.87	5.70	+1.17
F2	2.86			1.81			−0.67			5.27		
F	3.12	2.88	+0.24	2.00	1.73	+0.27	−0.65	−1.28	+0.63	6.24	4.98	+1.26
Third Survey:												
F	3.38	3.12	+0.26	2.61	2.01	+0.60	−1.09	−1.33	+0.33	8.81	6.27	+2.57
T	2.67	2.64	+0.03	1.84	1.73	+0.11	−0.79	−1.56	+0.77	4.92	4.57	+0.35
U	4.29	3.72	+0.57	2.32	2.40	−0.08	−0.55	−1.25	+0.70	9.96	8.93	+1.03
W	3.34	4.13	−0.79	3.95	3.15	+0.80	0.51	−0.39	−0.90	13.17	13.01	−0.16
Post Season:												
NW	4.47	3.86	+0.61	0.73	1.30	−0.57	−1.72	−1.65	−0.07	3.26	5.02	−1.76
SW	0.98	0.56	+0.42	0.80	−0.14	+0.94	−1.62	−1.64	+0.02	0.77	−0.08	+0.85
SE	4.61	3.22	+1.39	2.10	1.85	+0.25	−1.66	−1.56	−0.10	9.68	5.96	+3.72
S. Wolf Is.	5.57	3.73	+1.84	2.40	1.96	+0.44	−1.65	−1.57	−0.08	13.36	7.31	−6.05

minimum observed temperature are given in °C. and the heat transport is given in millions of cubic meter °C. per second. For purposes of comparison the observed value is followed by the seasonal normal where available and the anomaly from the seasonal normal.

Figure 32 is a schematic diagram representing the circulation deduced from the volume transports found during the different surveys and listed in table 1. In the first survey the volume transport and mean temperature were above normal in amounts progressively smaller from section F through section U with longer positive anomalies for both at section W. As noted earlier, the temperature minimum of the Labrador Current was decidedly warmer than usual. The positive anamalies of both volume and mean temperature are reflected in the considerable positive anomalies in heat transport throughout the first survey.

In the second survey the volume transport at the Bonavista triangle is clearly above normal. The mean temperature, however, was somewhat inconsistent with the result that the positive anomaly in the heat transport was contributed to by both volume and mean temperature of the water entering the triangle and largely the result of the volume of the water leaving the triangle. In figure 32 rounded mean values of volume transport have been used for the triangle both for the second survey and for the postseason cruise, assuming that there was no net transport vertically across the reference surface of 1,000 decibars. Farther

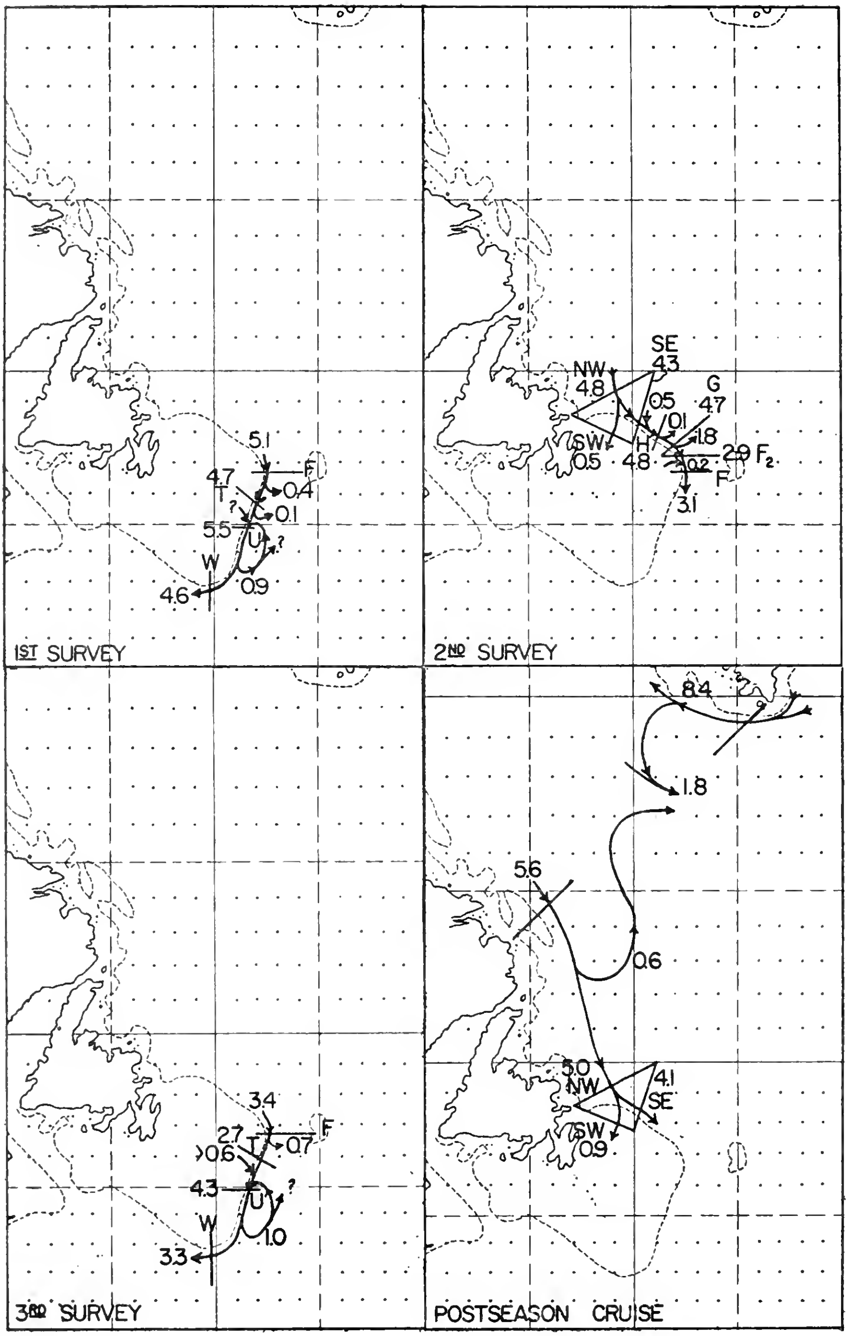

FIGURE 32.—Schematic representation of circulation deducted from sections occupied in 1958. Numerals indicate volume transport in units of $m^3 \times 10^6$/sec.

south at section F, while the volume transport and mean temperature were still above normal, they were much less so than in the first survey. The coldest water, however, continued to have a positive anomaly only slightly less than in the first survey.

In the third survey section F continued to have about the same positive anomaly of volume transport as in the second survey, but the additional water making up the seasonal increase in volume was of warmer water, increasing the anomaly of mean temperature to +0.6. The minimum temperature dropped to more nearly the seasonal normal.

The postseason occupation of the Bonavista triangle again showed a large positive anomaly in volume transport but less than during the occupation of the second survey. Minimum temperatures were about normal, but the mean temperatures were decidedly abnormal. The northwestern section was below normal in mean temperature, largely because the water below about 400 meters in the offshore end of the section where the water is relatively warm (about 3.5°) was motionless. The other two sections were above normal in mean temperature, resulting in a computed excess of heat leaving the triangle over that entering of about 7.2×10^6 $m^3{}^\circ C/sec$. It will be noted that in each occupation of the triangle the computed volume transport leaving the triangle (SW + SE) exceed that entering the triangle (NW) by about 1.1×10^6.

The section off South Wolf Island, Labrador, occupied immediately following the Bonavista triangle on the postseason cruise, again showed a warmer minimum observed temperature than that found at the triangle. The volume transport of the Labrador Current here was well above normal as was the volume of the West Greenland Current off Cape Farewell. The mean temperature of the Labrador Current off South Wolf Island also was above normal by almost a half degree. In consequence the heat transport was almost twice the normal value.

Figures 33, 34, and 35 show, respectively, the dynamic topography of the sea surface in the vicinity of the section across the Labrador Sea, and the temperature and salinity distribution along that section. The West Greenland Current past this section was computed to have a volume transport of 8.36, a mean temperature of 4.48 and a heat transport of 37.40. On the assumption of this current being made up of an East Greenland Current component of constant mean temperature of 3.2 and an Irminger Current of constant mean temperature of 5.5, these components were computed to have had volume transports of 3.73 and 4.63 as compared with their respective seasonal normals of 2.45 and 2.41. The heat transport found (37.40) is 16.3 greater than the seasonal normal of 21.1.

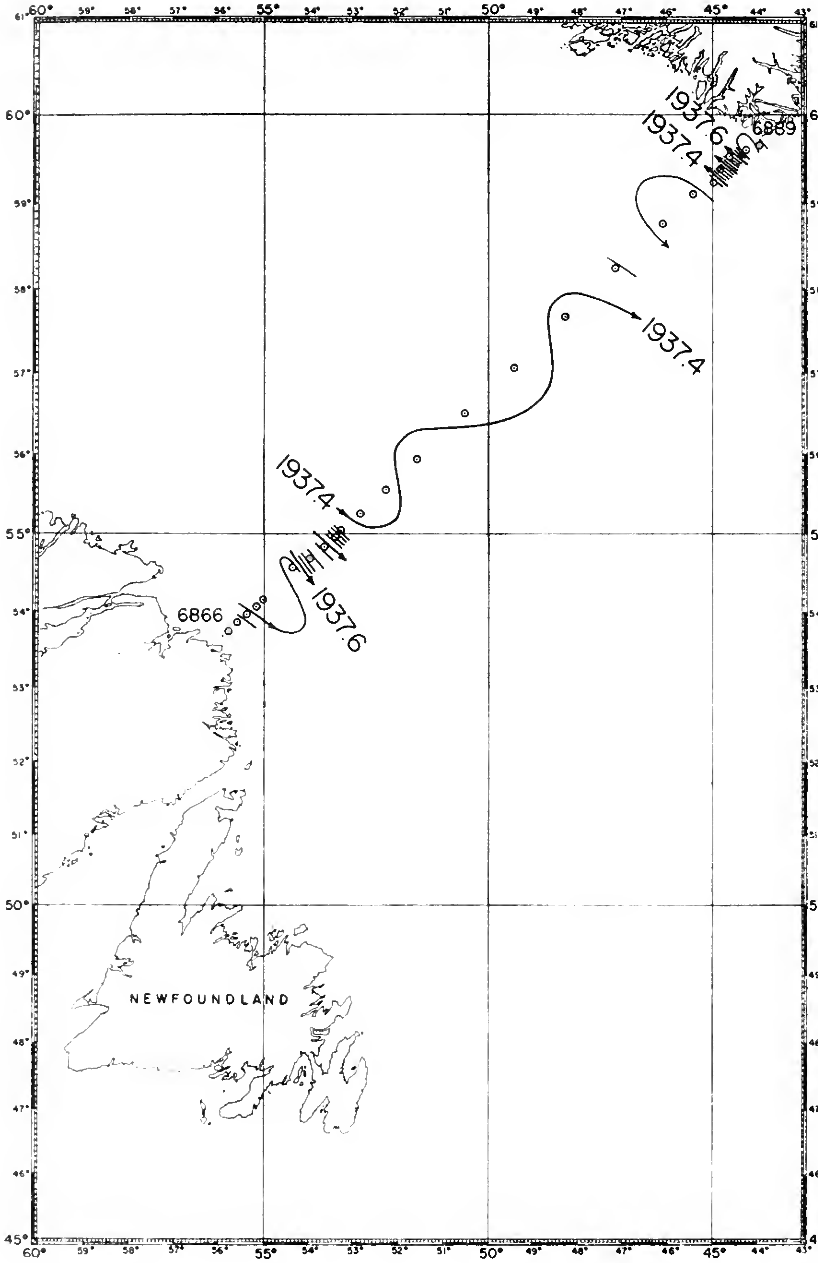

FIGURE 33.—Dynamic topography of the sea surface relative to the 2000-decibar surface from data collected 1-6 July 1958. Oceanographic station positions are indicated by circles.

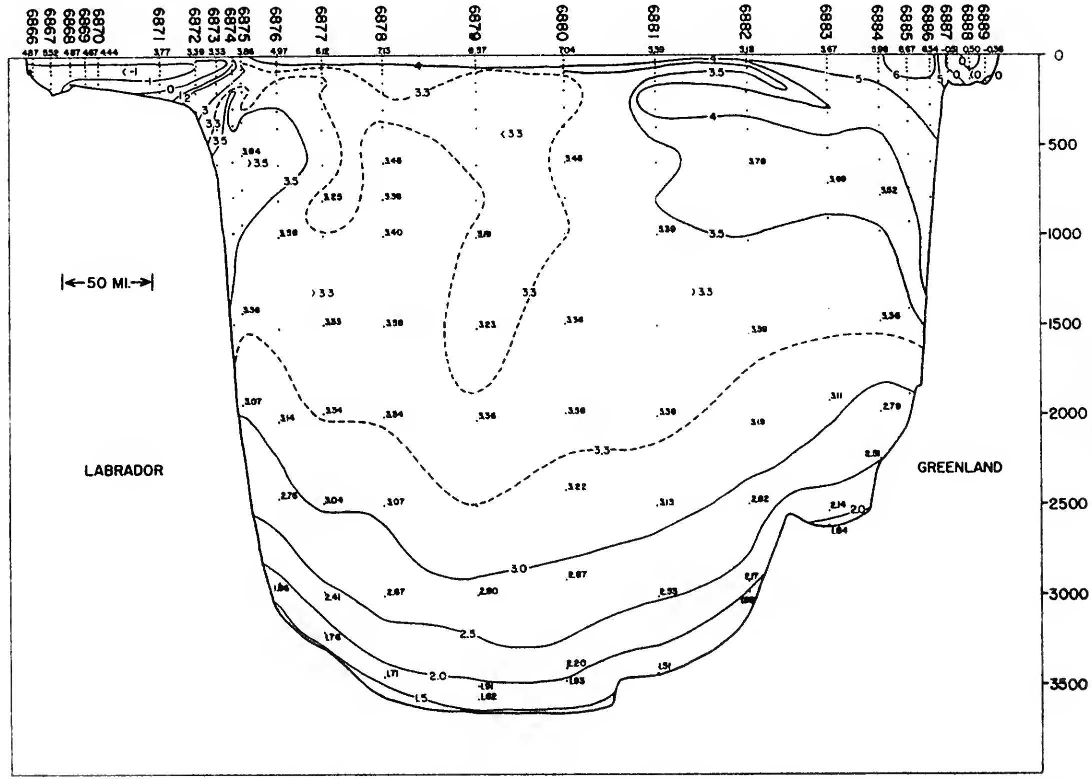

FIGURE 34.—Temperature distribution along section between South Wolf Island, Labrador and Cape Farewell, Greenland 1-6 July 1958.

Thus, on the basis of temperature, the abnormally high volume transport of the West Greenland Current was being contributed to more by the Irminger Current than by the East Greenland Current; although the salinity maximum in the West Greenland Current, as shown by figure 35, was about 0.06 °/₀₀ fresher than found in the occupations prior to 1949. The vigorous circulation in the Labrador Sea indicated by the positive anomalies in volume transport of the West Greenland Current off Cape Farewell and of the Labrador Current off South Wolf Island points to the greater amounts of warm West Greenland Current crossing to the American side as the reason for the higher than normal mean temperature of the Labrador Current off South Wolf Island. This is not consistant with the results obtained for the post-season occupation of the Bonavista triangle and casts further doubt on the triangle results. The previously mentioned disagreement between inflowing and outflowing heat combined with the foregoing indicate that the source of the discrepancy was section NW of the triangle.

In figure 34 the frigid part of the Labrador Current over the shelf is recognizable as is the West Greenland Current with its cold inshore and warm offshore components. On the Labrador side the tongue of maximum temperature which characteristically inclines downward toward the beach at intermediate depths on the offshore side of the Labrador Current is interrupted and colder water was found between the warm upper layers and the tongue (defined by the 3.5° isotherm in fig. 34) during this occupation of the section. In the central part of the section is to be seen the temperature minimum of the intermediate water and the corresponding temperature maximum below it. The warm water in the upper 1,000 meters between stations 6881 and 6883 is associated with the return southeastward of some of the West Greenland Current.

The fresher water over the Labrador and Greenland shelves, associated with the colder parts of the Labrador and West Greenland Currents, is evident in figure 35. The salinity maximum core of the Irminger Current component of the West Greenland Current is shown by the isohaline enclosing water of greater than 34.95 °/₀₀. The deep salinity maximum layer between 2,000 and 3,000 meters was slightly fresher than usual and while thus not as well defined by the 34.90 °/₀₀ isohaline it can be traced by inspection of the numerals showing the individual observations.

The analysis of the intermediate water and the deep water of this section as described in bulletin 42 of this series was continued for the 1958 occupation with the following average values of temperature and salinity resulting:

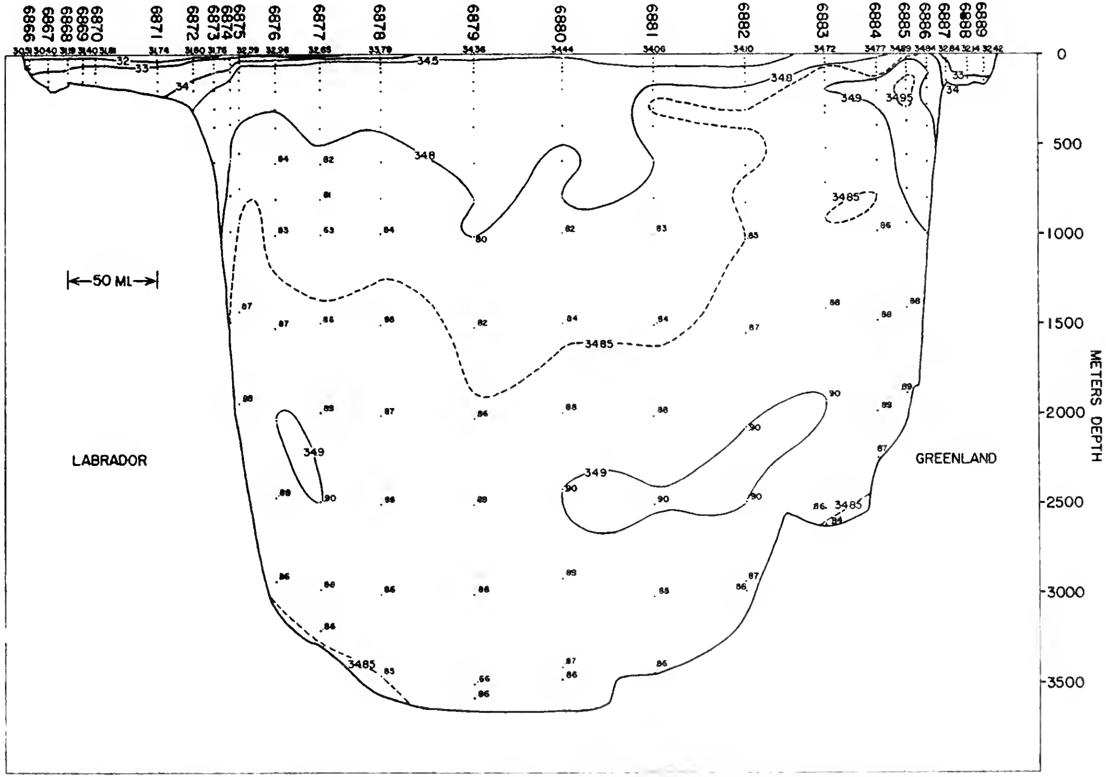

FIGURE 35.—Salinity distribution along section between South Wolf Island, Labrador and Cape Farewell, Greenland 1-6 July 1958.

	Temperature	Salinity
Intermediate water (stations 6877–6881)	3.35	34.82_2
2,000 meters	3.23	34.88_3
2.500 meters	2.95	34.89_1
3,000 meters	2.41	34.87_6
3,500 meters	1.82	34.85_7

In each case (except at 2,500 meters where the temperature was the same) the temperature was slightly higher and the salinity slightly lower than the corresponding values for 1957. The average increase in temperature was 0.06° and the average decrease in salinity was 0.006°/$_{oo}$ thus each contributing about equally to the average decrease in σ_t of 0.01.

An inspection of the isentropic surfaces intersecting the section indicated that for this occupation the most nearly motionless level was probably between 1,500 and 2,000 meters and closer to the latter than the former. A reference surface of 2,000 decibars was used, therefore, in the construction of figure 33 and in studying the volume and heat transports across the section. The net volume transport across the section, beach to beach, above this reference surface was computed to be 1.00×10^6 m^3/sec. in a northwesterly direction. As the volume transport of West Greenland Current exceeded that of the Labrador Current by 2.8, a value of 1.8 has therefore been assigned to that part of the West Greenland Current which recurves and recrosses the section to the southeastward as indicated in figure 32. The net volume transport across the section below the 2,000-decibar surface was also computed and it also was directed northwesterly with a computed magnitude of about 1 million cubic meters per second. (3.1 by one computation, 1.2 by another method and 0.9 by difference of the 11.46 flowing northwesterly between station 6879 and Greenland and the 10.53 flowing southeasterly between station 6879 and Labrador.)

In the past the net volume transport across the section above the reference surface has been computed to be directed northwesterly in some years and southeasterly in others. Following is a summary for the post war years:

	Reference surface decibars	Net volume transport $m^3 \times 10^6$/sec	Direction
1948	1,500	1.2	SE
1949	1,500	1.8	SE
1950	1,500	1.3	NW
1951	1,500	0.8	SE
1952	1,500	0.8	NW
1953	2,500	1.8	SE
1954	1,500	1.5	NW
1955	1,500	1.2	NW
1956	1,500	2.5	NW
1957	2,000	1.4	SE
1958	2,000	1.0	NW

In considering the meaning of the net transport in the past a net southeasterly flow has been taken to mean the excess of contributions into Baffin Bay through the northern openings (Smith Sound, Lancaster Sound, Jones Sound), over the amounts which sank below the reference surface in the Labrador Sea to exit to the Atlantic below the reference surface. When the net transport was northwesterly the balance was again presumed to be accomplished by sinking past the reference surface between the section and Davis Strait with a resulting net outflow below the reference surface. While it is realized that the cumulative errors of the second depth integral which are involved in the transport computation make the computed net transport below the reference surface of doubtful accuracy, if the northwesterly direction is significant it requires some revision in our thinking regarding the movement of the deep water of the Labrador Sea.

The tendency of the deeper isentropic surfaces in the Labrador Sea to parallel the bottom, resulting in an inclination upward toward Davis Strait ridge provides the possibility for water to change depth with the performance of a minimum of work. Thus it seems probable that the transfer of water across Davis Strait ridge is not always from north to south and that the oxygen-poor water in the deeper waters of Baffin Bay are kept from complete depletion of oxygen not only by water sinking from high levels within Baffin Bay itself but also by water crossing the threshold of Davis Strait from the south. Similar considerations suggest that the contributions of the Labrador Sea to the deep and bottom water of the North Atlantic may not be an annual cycle but may involve irregular periods with no contributions in one or more succeeding winters. The system cannot be clearly defined until such time as more extensive and repeated observations are available from both the Labrador Sea and Baffin Bay.

SUMMARY

1. Three dynamic topographic charts resulting from as many surveys of the Grand Banks region made in 1958 have been presented.

2. The Effects of the abnormal amount of onshore winds along the Labrador coast in the first 3 months of 1958 is altering the thermo-haline structure of the Labrador Current have been discussed.

3. The temperature-salinity characteristics of the three water masses found in the Grand Banks in 1958 have been compared with mean values 1948–58.

4. An extra southerly extension of a section southward from the Grand Banks completely crossing the Atlantic Current and

occupied during the third survey has been discussed with reference to the volume and heat transport of that current and compared with similar occupations of the section in 1938 and 1950.

5. The volume and heat transports, and the mean and minimum observed temperatures have been presented in a detailed examination of the Labrador Current for 19 sections occupied in 1958 and the departures from normal noted.

6. Tentative seasonal normal relationships for the Labrador Current off South Wolf Island, Labrador have been presented for the summer months.

7. The exceptionally vigorous circulation in the Labrador Sea found in 1958 has been presented by means of an examination of velocity and temperature sections across the Labrador Current off South Wolf Island and the West Greenland Current off Cape Farewell, Greenland.

8. Net volume transport across the section from South Wolf Island, Labrador to Cape Farewell, Greenland from surface to bottom has been computed and the northwesterly transport at all levels has been discussed.

TABLE OF OCEANOGRAPHIC DATA

The data collected in 1958 are tabulated below. The individual station headings give the station number, date, geographical position, depth of water and dynamic height of the sea surface used in the construction of the dynamic topographic charts shown in figures 19, 20, 21, 22, and 33. The depths of water are rough approximations being the uncorrected sonic soundings based on a sounding velocity of 800 fathoms per second and containing an additional mechanical speed error of about 1/60. Where the depths of scaled values are enclosed in parentheses, the data are based on extrapolated vertical distribution curves of temperature or salinity or both. Astrisks appearing before observed temperatures indicate that these temperatures were determined from the depth of reversal and the corrected reading of an unprotected thermometer. The symbol σ_t signifies 1,000 (density–1) at atmospheric pressure and temperature t.

Station 6573; 3 April; 41°56′ N., 51°02′ W.; depth 3,475 m.; dynamic height 971.056.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.49	33.64	0	5.49	33.64	26.56
25	4.30	33.64	25	4.30	33.64	26.70
50	7.19	34.22	50	7.19	34.22	26.80
76	3.80	33.93	75	3.90	33.94	26.97
101	0.84	33.74	100	0.85	33.74	27.06
151	2.83	34.16	150	2.80	34.15	27.25
202	4.53		200	4.50	34.44	27.31
303	4.41	34.60	300	4.45	34.59	27.43
407	5.34	34.93	400	5.30	34.93	27.60
608	4.74	34.885	600	4.75	34.89	27.63
808	4.39	34.955	800	4.45	34.95	27.72
1,009	4.00	34.92	1,000	4.00	34.92	27.75
1,511	3.61	34.91				

Station 6574; 3 April 41°59′ N., 51°56′ W.; depth 4,024 m.; dynamic height 971.108.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.81	34.71	0	6.81	34.71	26.24
24	6.40	33.76	25	6.40	33.76	26.55
48	6.78	33.90	50	7.00	34.00	26.65
73	10.88	35.07	75	10.85	35.08	26.88
97	10.50	35.10	100	10.35	35.09	26.98
145	8.16	34.62	150	8.15	34.63	26.98
193	8.28	34.91	200	8.15	34.90	27.19
290	5.38	34.68	300	5.30	34.68	27.40
398	5.02	34.79	400	5.00	34.79	27.53
598	4.82	34.945	600	4.80	34.94	27.66
799	4.13	34.89	800	4.15	34.89	27.70
996	3.86	34.885	1,000	3.85	34.89	27.73
1,483	3.72	34.915				

Station 6575; 3–4 April; 42°23′ N., 51°36′ W.; depth 3,109 m.; dynamic height 971.078.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.74	33.99	0	7.74	33.99	26.53
25	8.15	34.21	25	8.15	34.21	26.65
50	10.69	34.92	50	10.69	34.92	26.79
74	11.10	35.04	75	11.10	35.05	26.82
99	10.96	35.18	100	10.90	35.18	26.95
148	8.65	34.91	150	8.65	34.91	27.12
198	8.45	34.92	200	8.45	34.92	27.16
297	6.29	34.90	300	6.25	34.90	27.46
401	5.10	34.865	400	5.10	34.87	27.58
598	4.73	34.935	600	4.75	34.93	27.66
793	4.20	34.92	800	4.20	34.92	27.73
990	3.99	34.92	1,000	4.00	34.92	27.75
1,484	3.67	34.91				

Station 6576; 4 April; 42°44′ N., 51°06′ W.; depth 2,103 m.; dynamic height 971.064.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.18	33.84	0	6.18	33.84	26.64
25	4.19	33.74	25	4.19	33.74	26.79
50	0.52	33.50	50	0.52	33.50	26.89
75	0.77	33.60	75	0.77	33.60	26.96
100	0.37	33.66	100	0.37	33.66	27.03
150	0.44	33.72	150	0.44	33.72	27.07
201	1.44	34.09	200	1.40	34.08	27.30
301	2.14	34.26	300	2.15	34.26	27.39
369	3.29	34.60	400	3.55	34.66	27.58
550	4.42	34.80	600	4.30	34.81	27.63
728	3.90	34.835	800	3.85	34.85	27.70
911	3.81	34.86	1,000	3.75	34.86	27.72
1,369	3.56	34.85				

Station 6577; 4 April; 42°51′ N., 50°50′ W.; depth 1,079 m.; dynamic height 971.142.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.30	33.25	0	0.30	33.25	26.70
25	0.49	33.30	25	0.49	33.30	26.72
50	0.61	33.33	50	0.61	33.33	26.74
74	0.13	33.36	75	0.15	33.36	26.79
99	0.07	33.38	100	0.05	33.38	26.82
148	0.18	33.40	150	0.20	33.40	26.83
197	0.12	33.54	200	0.10	33.55	26.95
296	0.88	33.94	300	0.90	33.96	27.24
300	......	33.97	400	2.25	34.34	27.44
474	3.08	34.55	600	3.75	34.77	27.65
655	3.82	34.83	800	3.80	34.84	27.70
863	3.81	34.84	(1,000)	3.80	34.85	27.71

Station 6578; 4 April; 42°59′ N., 50°43′ W.; depth 622 m.; dynamic height 971.149.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.35	33.19	0	0.35	33.19	26.65
25	0.13	33.21	25	0.13	33.21	26.68
49	0.11	33.24	50	0.10	33.24	26.71
74	0.07	33.25	75	0.05	33.25	26.72
99	0.12	33.27	100	0.10	33.27	26.73
147	0.05	33.30	150	0.05	33.30	26.75
196	0.00	33.35	200	0.00	33.37	26.81
295	0.68	33.84	300	0.75	33.86	27.17
343	1.21	34.09	400	1.95	34.34	27.47
542	3.65	34.77	(600)	3.85	34.84	27.69

Station 6579; 4 April; 43°03′ N., 50°37′ W.; depth 170 m.; dynamic height 971.128.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.53	33.23	0	0.53	33.23	26.67
26	0.16	33.24	25	0.15	33.24	26.70
51	0.17	33.24	50	0.15	33.24	26.70
77	0.21	33.26	75	0.20	33.26	26.71
103	0.17	33.28	100	0.15	33.28	26.73
154	0.20	33.32	150	0.20	33.32	26.76

Station 6580; 4 April; 43°08.5′ N., 50°33′ W.; depth 93 m.; dynamic height 971.110.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.07	33.36	0	1.07	33.36	26.74
26	0.39	33.38	25	0.40	33.38	26.80
52	0.41	33.385	50	0.40	33.39	26.81
78	0.55	33.44	75	0.55	33.43	26.83

Station 6581; 4 April; 43°20′ N., 50°16′ W.; depth 68 m.; dynamic height 971.126.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.25	33.14	0	2.25	33.14	26.49
25	1.66	33.185	25	1.66	33.185	26.57
50	1.66	33.19	50	1.66	33.19	26.57

Station 6582; 4 April; 43°00′ N., 50°15′ W.; depth 86 m.; dynamic height 971.120.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.31	33.10	0	1.31	33.10	26.52
25	0.48	33.14	25	0.48	33.14	26.60
50	0.62	33.28	50	0.62	33.28	26.71
75	0.60	33.39	75	0.60	33.39	26.79

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6583; 4 April; 42°47′ N., 50°21′ W.; depth 320 m.; dynamic height 971.135.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.02	33.12	0	0.02	33.12	26.61
24	−0.05	33.13	25	−0.05	33.13	26.62
48	−0.05	33.135	50	−0.05	33.14	26.63
72	−0.02	33.16	75	0.00	33.16	26.64
96	0.04	33.16	100	0.05	33.16	26.64
144	0.10	33.23	150	0.15	33.27	26.72
191	0.62	33.71	200	0.75	33.78	27.10
287	1.98	34.27	(300)	2.15	34.31	27.43

Station 6584; 4 April; 42°37.5′ N., 50°22′ W.; depth 1,509 m.; dynamic height 971.003.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.03	33.54	0	5.03	33.54	26.54
25	6.25	33.92	25	6.25	33.92	26.69
51	5.48	34.19	50	5.50	34.18	26.98
76	3.38	34.09	75	3.65	34.09	27.12
102	4.38	34.30	100	4.35	34.29	27.20
152	4.44	34.43	150	4.45	34.43	27.30
203	3.45	34.42	200	3.45	34.42	27.40
305	4.29	34.75	300	4.25	34.73	27.56
402	4.39	34.82	400	4.40	34.82	27.62
602	3.96	34.845	600	4.00	34.85	27.69
			800	3.70	34.85	27.72
1,001	3.61	34.855	1,000	3.60	34.85	27.73
1,426	3.53	34.855				

Station 6585; 4–5 April; 42°23′ N., 50°26′ W.; depth 2,650 m.; dynamic height 971.001.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.82	33.68	0	6.82	33.68	26.43
24	5.57	33.70	25	5.50	33.70	26.61
48	3.25	33.84	50	3.25	33.85	26.96
72	3.50	34.10	75	3.50	34.12	27.16
96	3.25	34.21	100	3.30	34.24	27.27
144	4.73	34.55	150	4.85	34.57	27.38
193	5.24	34.68	200	5.20	24.69	27.42
289	4.57	34.74	300	4.50	34.74	27.54
363	4.02	34.74	400	4.10	34.77	27.62
545	4.53	34.93	600	4.55	34.94	27.70
728	4.31	34.95	800	4.30	34.95	27.73
916	4.09	34.935	1,000	4.10	34.93	27.74
1,395	3.60	34.92				

Station 6586; 5 April; 42° 00′ N., 50°22′ W.; depth 3,383 m.; dynamic height 970.974.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.90	33.60	0	5.90	33.60	26.48
26	5.32	33.70	25	5.35	33.70	26.63
51	3.31	33.93	50	3.40	33.91	27.00
76	2.86	34.12	75	2.85	34.11	27.21
101	3.53	34.34	100	3.50	34.33	27.32
151	3.55	34.47	150	3.55	34.47	27.43
202	3.34	34.56	200	3.35	34.51	27.48
303	4.89	34.88	300	4.90	34.87	27.61
418	5.19	34.99	400	5.20	34.98	27.65
625	4.21	34.915	600	4.30	34.92	27.71
829	4.15	34.93	800	4.15	34.93	27.73
1,036	3.86	34.915	1,000	3.90	34.92	27.76
1,555	3.55	34.905				

Station 6587; 5 April; 41°29′ N., 50°32′ W.; depth 3,558 m.; dynamic height 971.223.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	14.27	35.76	0	14.27	35.76	26.73
22	14.28	35.75	25	14.25	35.74	26.72
44	13.53	34.62	50	13.40	35.59	26.78
66	13.22	35.55	75	13.20	35.56	26.80
88	13.31	35.57	100	13.40	35.59	26.78
132	13.56	35.64	150	13.35	35.58	26.79
176	12.89	35.49	200	12.40	35.40	26.84
264	10.36	35.18	(300)	9.00	35.03	27.16
			(400)	6.30	34.70	27.30
			(600)	4.70	34.75	27.53
			(800)	4.15	34.87	27.69
			(1,000)	3.85	34.91	27.75

Station 6588; 5 April; 41°04′ N., 50°18′ W.; depth 3,676 m.; dynamic height 971.327.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	15.30	35.99	0	15.30	35.99	26.68
25	15.35	35.98	25	15.35	35.98	26.66
50	15.31	35.98	50	15.31	35.98	27.67
75	15.27	35.99	75	15.27	35.99	26.69
100	15.27	35.99	100	15.27	35.99	26.69
150	15.27	35.99	150	15.27	35.99	26.69
200	15.24	35.98	200	15.24	35.98	26.69
300	14.05	35.99	300	14.05	35.99	26.96
371	......	35.38	400	10.30	35.28	27.13
553	7.55	35.05	600	6.90	35.02	27.47
733	5.37	34.975	800	4.95	34.98	27.68
926	4.61	34.96	1,000	4.50	34.96	27.72
1,426	3.88	34.925				

Station 6589; 5–6 April; 42°03′ N., 49°26′ W.; depth 3,329 m.; dynamic height 971.260.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	14.41	35.84	0	14.41	35.84	26.77
22	14.39	35.835	25	14.40	35.83	26.76
45	14.40	35.83	50	14.40	35.83	26.76
67	14.42	35.83	75	14.40	35.83	26.76
89	14.44	35.835	100	14.40	35.83	26.76
133	14.42	35.835	150	14.40	35.83	26.76
178	14.36	35.82	200	13.90	35.73	26.78
267	11.91	35.41	300	11.15	35.31	27.01
391	9.31	35.14	400	9.15	35.12	27.21
588	5.97	34.97	600	5.85	34.97	27.57
789	4.80	34.97	800	4.75	34.97	27.70
994	4.36	34.96	1,000	4.35	34.96	27.74
1,519	3.62	34.91				

Station 6590; 6 April; 41°34′ N., 49°01′ W.; depth 3,658 m.; dynamic height 971.296.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	14.51	35.85	0	14.51	35.85	26.75
20	14.49	35.85	25	14.50	35.84	26.74
41	14.52	35.84	50	14.50	35.84	26.74
62	14.51	35.84	75	14.50	35.84	26.74
83	14.50	35.84	100	14.50	35.85	26.75
124	14.47	35.85	150	14.25	35.80	26.77
165	14.13	35.78	200	13.95	35.73	26.77
248	13.69	35.65	300	12.05	35.47	26.97
287	12.29	35.50	400	10.05	35.26	27.16
425	9.56	35.22	600	6.25	34.95	27.50
560	6.89	35.00	800	4.55	34.90	27.67
713	4.85	34.88	1,000	4.35	34.94	27.72
1,119	4.19	34.96				

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t

Station 6591; 6 April; 41°16′ N., 48°34′ W.; depth 3,475 m.; dynamic height 971.320.

Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	14.71	35.79	0	14.71	35.79	26.66
23	14.73	35.79	25	14.75	35.79	26.65
46	14.89	35.84	50	14.95	35.87	26.67
69	15.04	35.96	75	15.05	35.96	26.72
92	15.00	35.95	100	14.95	35.95	26.74
138	14.91	35.95	150	14.80	35.92	26.74
184	14.25	....	200	14.10	35.72	26.74
276	13.49	35.54	300	12.90	35.49	26.81
390	10.47	35.28	400	10.25	35.25	27.12
581	6.11	34.93	600	5.90	34.93	27.53
770	4.99	34.96	800	4.90	34.96	27.68
971	4.55	34.96	1,000	4.50	34.96	27.72
1,488	3.76	34.915				

Station 6592; 6 April; 41°37′ N., 47°16′ W.; depth 4,289 m.; dynamic height 971.228.

Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	14.29	35.80	0	14.29	35.80	26.76
26	14.25	35.80	25	14.25	35.80	26.77
51	14.23	35.78	50	14.25	35.78	26.76
77	14.17	35.77	75	14.15	35.77	26.77
103	14.15	35.77	100	14.15	35.77	26.77
153	13.74	35.69	150	13.80	35.70	26.79
205	13.09	35.54	200	13.20	35.55	26.80
308	10.71	35.30	300	10.95	35.32	27.06
408	7.68	35.00	400	7.90	35.02	27.33
611	5.33	34.95	600	5.40	34.95	27.61
814	4.53	34.92	800	4.60	34.92	27.68
1,018	4.05	34.905	1,000	4.05	34.91	27.73
1,531	3.68	34.91				

Station 6593; 6 April; 41°57′ N., 47°52′ W.; depth 3,830 m.; dynamic height 971.021.

Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	6.38	33.77	0	6.38	33.77	26.56
26	6.38	33.76	25	6.40	33.76	26.55
53	[illegible]	33.75	50	6.25	33.75	26.56
79	4.50	33.95	75	4.70	33.91	26.87
105	5.66	34.41	100	5.50	34.32	27.10
157	5.21	34.63	150	5.25	34.61	27.36
210	5.29	34.72	200	5.25	34.70	27.43
315	5.50	34.92	300	5.50	34.90	27.56
526	......	34.97	400	5.40	34.96	27.62
638	4.80	34.995	600	4.90	34.99	27.70
835	4.23	34.95	800	4.35	34.96	27.74
1,048	3.80	34.91	1,000	3.85	34.92	27.76
1,587	3.47	34.89				

Station 6594; 7 April; 42°20′ N., 48°34′ W.; depth 3,383 m.; dynamic height 971.013.

Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	6.32	33.73	0	6.32	33.73	26.53
24	6.34	33.72	25	6.35	33.72	26.52
48	8.70	34.76	50	8.65	34.68	26.94
71	7.99	34.72	75	7.80	34.71	27.10
95	7.06	34.60	100	6.80	34.58	27.13
144	5.34	34.52	150	5.30	34.52	27.28
191	5.15	34.62	200	5.15	34.64	27.39
286	5.18	34.84	300	5.20	34.86	27.56
392	5.09	34.93	400	5.10	34.93	27.62
588	4.84	34.99	600	4.80	34.99	27.71
784	4.09	34.915	800	4.05	34.91	27.73
984	3.80	34.90	1,000	3.80	34.90	27.75
1,494	3.51	34.89				

Station 6595; 7 April 42°43.5′ N., 49°15′ W.; depth 2,469 m.; dynamic height 971.011.

Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	6.51	33.78	0	6.51	33.78	26.54
25	6.47	33.78	25	6.47	33.78	26.55
51	6.42	33.78	50	6.40	33.78	26.56
76	4.77	34.10	75	4.80	34.09	27.00
102	5.63	34.46	100	5.60	34.43	27.17
152	5.72	34.64	150	5.75	34.63	27.31
204	5.48	34.75	200	5.50	34.74	27.43
306	5.74	34.96	300	5.75	34.95	27.56
420	5.04	34.96	400	5.15	34.96	27.65
623	4.43	34.95	600	4.50	34.95	27.71
823	3.98	34.91	800	4.05	34.92	27.74
1,032	3.66	34.89	1,000	3.70	34.89	27.75
1,557	3.43	34.87				

Station 6596; 7 April; 43°22′ N., 48°50′ W.; depth 1,920 m.; dynamic height 970.988.

Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	5.97	33.96	0	5.97	33.96	26.76
25	5.45	33.95	25	5.45	33.95	26.82
49	5.19	33.94	50	5.20	33.94	26.84
74	5.19	34.11	75	5.20	34.12	26.98
99	6.75	34.66	100	6.75	34.66	27.21
148	3.34	34.33	150	3.35	34.33	27.33
197	3.94	34.58	200	3.95	34.58	27.47
296	3.81	34.70	300	3.85	34.70	27.58
408	4.29	34.82	400	4.30	34.81	27.63
604	4.13	34.90	600	4.15	34.90	27.71
794	3.88	34.89	800	3.90	34.89	27.73
995	3.73	34.90	1,000	3.75	34.90	27.75
1,501	3.48	34.885				

Station 6597; 7 April; 43°07′ N., 48°11′ W.; depth 3,017 m.; dynamic height 971.051.

Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	8.18	34.06	0	8.18	34.06	26.53
25	7.66	34.06	25	7.66	34.06	26.61
50	7.55	34.16	50	7.55	34.16	26.70
74	7.90	34.45	75	7.90	34.45	26.88
99	7.56	34.58	100	7.55	34.58	27.03
149	7.67	34.78	150	7.65	34.78	27.17
198	7.04	34.82	200	7.05	34.82	27.29
297	5.92	34.85	300	5.90	34.85	27.47
380	5.28	34.90	400	5.25	34.91	27.60
565	5.08	35.01	600	4.95	35.00	27.70
748	4.33	34.95	800	4.20	34.94	27.74
941	3.99	34.92	1,000	3.95	34.92	27.75
1,432	3.60	34.905				

Station 6598; 7 April; 42°53′ N., 47°30′ W.; depth 3,695 m.; dynamic height 971.027.

Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	6.68	33.72	0	6.68	33.72	26.48
24	8.04	34.24	25	8.04	34.24	26.69
49	5.44	34.08	50	5.45	34.08	26.91
74	5.46	34.26	75	5.45	34.26	27.06
98	6.76	34.64	100	6.75	34.64	27.19
147	5.99	34.64	150	6.00	34.64	27.29
197	6.70	34.84	200	6.70	34.84	27.35
295	5.73	34.86	300	5.70	34.86	27.50
385	5.00	34.88	400	4.95	34.88	27.60
572	4.60	34.92	600	4.60	34.93	27.68
757	4.79	35.02	800	4.70	35.01	27.74
952	4.23	34.95	1,000	4.15	34.94	27.74
1,449	3.58	34.90				

STATIONS OCCUPIED IN 1958—Continued

Station 6599; 8 April; 42°41.5′ N., 46°50′ W.; depth 5,035 m.; dynamic height 971.144.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ t
0	7.00	33.58	0	7.00	33.58	26.32
25	6.30	33.62	25	6.30	33.62	26.45
50	6.56	33.78	50	6.56	33.78	26.54
75	5.00	33.82	75	5.00	33.82	26.77
100	4.33	33.75	100	4.33	33.75	26.78
150	4.57	33.79	150	4.57	33.79	26.78
201	5.65	34.00	200	5.65	34.00	26.83
301	4.88	34.42	300	4.90	34.41	27.24
351	4.98	34.86	400	5.00	34.90	27.62
521	4.91	34.95	600	4.65	34.94	27.69
686	4.41	34.92	800	4.20	34.92	27.73
873	4.12	34.92	1,000	3.95	34.91	27.74
1,364	3.57	34.88				

Station 6600; 8 April; 42°30.5′ N., 46°06′ W.; depth 4,115 m.; dynamic height 971.484.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ t
0	15.79	36.12	0	15.79	36.12	26.68
24	15.79	36.11	25	15.80	36.11	26.67
49	15.81	36.115	50	15.80	36.11	26.67
73	15.82	36.12	75	15.80	36.12	26.67
98	15.79	36.11	100	15.80	36.11	26.67
145	15.78	36.11	150	15.75	36.11	26.68
194	15.76	36.11	200	15.75	36.11	26.68
292	14.43	35.86	300	14.35	35.85	26.78
417	13.42	35.74	400	13.55	35.76	26.89
614	9.81	35.25	600	10.05	35.27	27.17
803	6.63	35.06	800	6.70	35.06	27.53
1,009	4.96	34.96	1,000	5.00	34.96	27.67
1,528	3.95	34.925				

Station 6601; 8 April; 42°59′ N., 45°36′ W.; depth 4,676 m.; dynamic height 971.520.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ t
0	15.62	36.11	0	15.62	36.11	26.70
26	15.72	36.11	25	15.70	36.10	26.69
51	15.73	36.10	50	15.70	36.10	26.68
77	15.76	36.11	75	15.75	36.11	26.68
102	15.77	36.10	100	15.75	36.10	26.67
153	15.76	36.11	150	15.75	36.11	26.68
204	15.76	36.11	200	15.75	36.11	26.68
306	15.75	36.09	300	15.75	36.10	26.67
383	14.56	35.94	400	14.20	35.90	26.85
562	11.34	35.44	600	10.60	35.35	27.14
738	7.82	35.10	800	6.90	35.06	27.50
928	5.63	35.00	1,000	5.20	34.98	27.65
1,409	4.03	34.93				

Station 6602; 8 April; 43°20′ N., 45°15′ W.; depth 4,709 m.; dynamic height 971.428.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ t
0	15.71	36.05	0	15.71	36.05	26.64
27	15.69	36.06	25	15.70	36.06	26.65
53	15.66	36.06	50	15.65	36.06	26.66
80	15.68	36.045	75	15.65	36.05	26.65
106	15.69	36.05	100	15.70	36.05	26.64
160	15.66	36.045	150	15.65	36.05	26.65
214	15.04	35.90	200	15.20	35.94	26.67
320	14 38	35.93	300	14.55	35.93	26.80
325	14 40	35.95	400	12.40	35.56	26.96
476	10.62	35.18	600	8.55	35.16	27.33
620	8.24	35.16	800	6.10	35.05	27.60
778	6.32	35.06	1,000	4.75	34.99	27.71
1,175	4.19	34.95				

Station 6603; 8–9 April; 43°33′ N., 45°51′ W.; depth 4,663 m.; dynamic height 971.246.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ t
0	14.58	35.89	0	14.58	35.89	26.77
27	14.58	35.885	25	14.60	35.89	26.76
53	14.57	35.895	50	14.60	35.89	26.76
80	14.58	35.88	75	14.60	35.88	26.75
106	14.54	35.875	100	14.55	35.88	26.76
160	13.37	35.63	150	13.55	35.67	26.82
213	12.81	35.58	200	12.95	35.59	26.87
319	10.24	35.285	300	11.30	35.41	27.06
344	10.78	35.355	400	8.45	35.06	27.27
494	6.04	34.65	600	4.95	34.79	27.53
632	4.80	34.825	800	4.50	34.91	27.68
794	4.50	34.915	1,000	4.20	34.91	27.72
1,204	3.92	34.91				

Station 6604; 9 April; 43°42.5′ N., 46°13′ W.; depth 3,998 m.; dynamic height 971.061.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ t
0	6.86	33.62	0	6.86	33.62	26.37
27	6.35	33.66	25	6.35	33.66	26.47
54	6.36	33.78	50	6.35	33.75	26.54
81	7.19	34.30	75	7.00	34.21	26.82
107	5.12	34.20	100	5.65	34.22	27.00
162	4.56	34.36	150	4.60	34.31	27.20
216	4.61	34.52	200	4.60	34.48	27.32
323	4.14	34.64	300	4.20	34.61	27.48
412	4.77	34.84	400	4.70	34.82	27.59
612	4.60	34.935	600	4.60	34.93	27.68
809	4.19	34.93	800	4.20	34.93	27.73
1,019	3.89	34.91	1,000	3.90	34.91	27.75
1,556	3.61	34.905				

Station 6605; 9 April; 43°50′ N., 46°44′ W.; depth 3,566 m.; dynamic height 971.108.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ t
0	12.36	35.38	0	12.36	35.38	26.83
27	12.36	35.37	25	12.35	35.37	26.83
53	12.36	35.37	50	12.35	35.37	26.83
80	12.38	35.38	75	12.40	35.38	26.83
107	12.40	35.39	100	12.40	35.39	26.83
161	12.22	35 39	150	12.30	35.39	26.85
214	10.99	35.36	200	11.40	35.37	27.01
321	7.25	35.25	300	7.90	35.24	27.50
424	6.66	35.06	400	6.85	35.13	27.56
635	4.93	....	600	5.15	34.98	27.66
848	4.04	34.89	800	4.25	34.90	27.70
1,062	3.58	34.86	1,000	3.65	34.87	27.74
1,599	3.47	34 885				

Station 6606; 9 April 43°56′ N., 47°24′ W.; depth 4,207 m.; dynamic height 971.139.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ t
0	12.26	35.36	0	12.26	35.36	26.84
25	12.24	36.36	25	12.24	35.36	26.84
50	12.21	35.36	50	12.21	35.36	26.85
76	12.24	35.36	75	12.25	35.36	26.84
101	12.24	35.36	100	12.20	35.36	26.85
150	12.26	35.365	150	12.25	35.37	26.85
200	11.43	35.32	200	11.45	35.32	26.96
301	8.15	35.00	300	8.20	35.00	27.26
417	5.29	34.79	400	5.50	34.80	27.48
622	4.21	34.84	600	4.30	34.84	27.65
825	3.86	34.86	800	3.90	34.86	27.71
1,034	3.86	34.895	1,000	3.85	34.89	27.63
1,566	3.50	34.88				

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6607; 9 April; 44°02′ N., 48°02′ W.; depth 3,932 m.; dynamic height 971.013.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	8.33	34.09	0	8.33	34.09	26.53
26	7.80	34.08	25	7.80	34.08	26.60
53	9.11	34.65	50	9.05	34.63	26.84
79	7.80	34.65	75	8.00	34.65	27.02
105	7.33	34.73	100	7.40	34.72	27.16
157	6.95	34.78	150	7.00	34.78	27.26
210	4.19	34.53	200	4.65	34.57	27.40
315	4.68	34.79	300	4.65	34.76	27.55
352	4.53	34.82	400	4.50	34.85	27.63
527	4.33	34.89	600	4.30	34.90	27.69
700	4.09	34.905	800	3.90	34.90	27.74
884	3.70	34.89	1,000	3.65	34.88	27.74
1,359	3.43	34.86				

Station 6608; 9 April; 44°07′ N., 48°33′ W.; depth 3,475 m.; dynamic height 970.970.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	4.93	33.95	0	4.93	33.95	26.87
23	4.72	33.94	25	4.70	33.94	26.89
45	4.41	33.91	50	4.15	33.89	26.90
68	2.64	33.78	75	1.90	33.78	27.02
91	0.98	33.80	100	1.55	33.91	27.15
137	4.89	34.55	150	5.25	34.66	27.40
182	5.71	34.78	200	5.55	34.80	27.47
273	4.67	34.80	300	4.45	34.84	27.63
292	4.47	34.87	400	4.30	34.88	27.68
472	4.22	34.895	600	4.05	34.90	27.72
677	3.95	34.90	800	3.85	34.89	27.73
869	3.82	34.88	(1,000)	3.75	34.87	27.73
1,386	3.45	34.81				

Station 6609; 10 April; 44°10′ N., 48°53′ W.; depth 1,650 m.; dynamic height 971.008.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.32	33.00	0	0.32	33.00	26.50
24	0.29	33.01	25	0.35	33.01	26.51
49	2.33	33.76	50	2.35	33.77	26.98
73	1.46	33.93	75	1.45	33.94	27.18
98	1.56	34.05	100	1.60	34.06	27.27
145	1.92	34.20	150	1.95	34.21	27.37
194	2.16	34.32	200	2.20	34.33	27.44
292	3.01	34.56	300	3.05	34.57	27.56
297	3.05	34.56	400	3.85	34.71	27.59
431	3.96	34.74	600	4.00	34.83	27.67
557	4.03	34.82	800	3.75	34.84	27.70
714	3.78	34.835	1,000	3.60	34.84	27.72
1,136	3.51	34.84				

Station 6610; 10 April; 44°11.5′ N., 49°03′ W.; depth 622 m.; dynamic height 971.116.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.37	32.96	0	0.37	32.96	26.46
19	0.36	32.99	25	0.35	33.00	26.50
39	0.31	33.01	50	0.00	33.11	26.60
58	−0.26	33.21	75	0.05	33.43	26.86
77	0.10	33.46	100	0.30	33.58	26.96
115	0.39	33.65	150	0.45	33.78	27.11
154	0.51	33.80	200	1.15	33.98	27.23
231	1.53	34.10	300	1.65	34.21	27.39
263	1.50	34.14	400	2.30	34.39	27.48
411	2.40	34.41	(600)	3.20	34.61	27.58

Station 6611; 10 April; 44°12.5′ N., 49°09′ W.; depth 169 m.; dynamic height 971.140.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.45	32.98	0	0.45	32.98	26.48
24	0.40	32.99	25	0.40	32.99	26.49
48	−0.07	33.16	50	−0.10	33.16	26.64
71	−0.11	33.20	75	−0.10	33.22	26.69
95	−0.02	33.43	100	0.00	33.47	26.90
143	0.53	33.76	150	0.65	33.79	27.11

Station 6612; 10 April; 44°13′ N., 49°12′ W.; depth 91 m.; dynamic height 971.148.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.46	32.94	0	0.46	32.94	26.44
24	0.46	32.94	25	0.45	32.94	26.45
49	0.14	33.02	50	0.10	33.02	26.53
73	−0.01	33.11	75	0.00	33.11	26.60

Station 6613; 10 April; 44°14′ N., 49°23′ W.; depth 54 m.; dynamic height 971.147.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.60	32.94	0	0.60	32.94	26.44
24	0.56	32.94	25	0.55	32.94	26.44
47	0.57	32.94	50	0.55	32.94	26.44

Station 6614; 10 April; 44°53′ N., 49°06′ W.; depth 73 m.; dynamic height 971. 153.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.85	32.84	0	0.85	32.84	26.35
25	0.66	32.84	25	0.66	32.84	26.36
50	0.29	32.93	50	0.29	32.93	26.45

Station 6615; 10 April; 44°53.5′ N., 49°02′ W.; depth 89 m.; dynamic height 971.150.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.84	32.85	0	0.84	32.85	26.36
25	0.62	32.87	25	0.62	32.87	26.38
50	0.11	33.00	50	0.11	33.00	26.52
75	0.04	33.04	75	0.04	33.04	26.55

Station 6616; 10 April; 44°50.5′ N., 48°56′ W.; depth 640 m.; dynamic height 971.147.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.89	32.84	0	0.89	32.84	26.34
25	0.88	32.86	25	0.88	32.86	26.36
49	−0.16	33.15	50	−0.15	33.15	26.64
74	−0.24	33.21	75	−0.25	33.21	26.70
99	−0.30	33.25	100	−0.30	33.25	26.72
148	−0.24	33.31	150	−0.25	33.32	26.78
197	0.18	33.52	200	0.20	33.53	26.93
296	1.60	34.18	300	1.65	34.20	27.38
387	2.27	34.39	400	2.35	34.41	27.49
592	3.15	34.64	600	3.15	34.65	27.61

STATIONS OCCUPIED IN 1958—Continued

Station 6617; 10 April; 44°48.5′ N., 48°42′ W.; depth 1,829 m.; dynamic height 971.073.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.72	32.89	0	0.72	32.89	26.38
25	0.38	32.97	25	0.38	32.97	26.47
50	−0.13	33.34	50	−0.13	33.34	26.79
76	0.16	33.50	75	0.15	33.50	26.91
101	0.25	33.60	100	0.25	33.60	26.99
151	0.33	33.67	150	0.35	33.66	27.03
201	0.95	33.94	200	0.95	33.93	27.20
302	1.75	34.26	300	1.75	34.25	27.41
			(400)	2.35	34.46	27.53
			(600)	3.10	34.70	27.66
			(800)	3.35	34.81	27.72
			(1,000)	3.40	34.85	27.75

Station 6618; 10 April; 44°45.5′ N., 48°30′ W.; depth 1,646 m.; dynamic height 970.980.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.55	33.04	0	0.55	33.04	26.52
25	0.54	33.08	25	0.54	33.08	26.55
49	1.02	33.62	50	1.05	33.64	26.97
73	0.93	33.90	75	0.95	33.92	27.20
97	1.79	34.04	100	1.85	34.05	27.24
147	2.22	34.24	150	2.25	34.25	27.37
196	2.85	34.46	200	2.90	34.47	27.50
293	3.95	34.72	300	4.00	34.73	27.59
364	4.10	34.79	400	4.10	34.80	27.64
550	3.93	34.845	600	3.85	34.85	27.70
740	3.65	34.86	800	3.60	34.85	27.73
935	3.51	34.845	1,000	3.50	34.85	27.74
1,439	3.42	34,865				

Station 6619; 11 April; 44°40′ N., 47°55′ W.; depth 3,557 m.; dynamic height 970.947.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.22	33.94	0	6.22	33.94	26.71
26	6.21	33.945	25	6.20	33.94	26.71
52	5.82	33.90	50	5.85	33.90	26.73
78	4.26	34.28	75	4.30	34.23	27.16
104	4.51	34.51	100	4.50	34.48	27.34
156	4.69	34.72	150	4.70	34.71	27.50
208	4.70	34.82	200	4.70	34.81	27.58
312	4.27	34.85	300	4.30	34.85	27.66
411	4.36	34.90	400	4.35	34.90	27.69
616	3.93	34.885	600	3.95	34.89	27.72
823	3.59	34.86	800	3.60	34.86	27.74
1,033	3.60	34.89	1,000	3.60	34.89	27.76
1,565	3.47	34.90				

Station 6620; 11 April; 44°34′ N., 47°15′ W.; depth 4,023 m.; dynamic height 971.008.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.81	33.85	0	5.81	33.85	26.69
22	5.82	33.84	25	5.80	33.84	26.68
43	5.80	33.85	50	5.70	33.87	26.73
65	5.48	33.96	75	5.50	34.11	26.93
86	5.59	34.25	100	5.20	34.28	27.10
129	4.36	34.32	150	4.35	34.39	27.28
172	4.40	34.47	200	4.45	34.56	27.41
258	4.57	34.72	300	4.60	34.80	27.58
333	4.61	34.84	400	4.45	34.87	27.66
513	4.20	34.89	600	4.05	34.88	27.70
701	3.87	34.85	800	3.70	34.85	27.72
890	3.58	34.85	1,000	3.55	34.85	27.73
1,385	3.45	34.87				

Station 6621; 11 April; 44°28′ N., 46°32′ W.; depth 3,932 m.; dynamic height 971.076.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	8.34	34.22	0	8.34	34.22	26.63
25	8.32	34.22	25	8.32	34.22	26.63
50	8.42	34.26	50	8.42	34.26	26.65
75	8.53	34.38	75	8.53	34.38	26.73
100	9.20	34.78	100	9.20	34.78	26.93
151	8.82	34.91	150	8.80	34.91	27.10
201	7.97	34.89	200	8.00	34.89	27.21
301	6.41	34.905	300	6.40	34.90	27.44
358	6.03	34.95	400	5.70	34.95	27.57
533	4.82	34.93	600	4.50	34.92	27.69
706	4.04	34.88	800	3.90	34.89	27.73
895	3.76	34.89	1,000	3.70	34.89	27.75
1,388	3.49	34.88				

Station 6622; 11 April; 44°21.5′ N., 45°50′ W.; depth 4,006 m.; dynamic height 971.005.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.80	34.10	0	7.80	34.10	26.62
27	7.34	34.05	25	7.40	34.05	26.64
53	6.58	34.03	50	6.65	34.03	26.72
80	5.79	34.15	75	5.95	34.13	26.89
106	4.30	34.21	100	4.40	34.19	27.12
160	5.00	34.58	150	4.90	34.52	27.33
214	4.76	34.67	200	4.80	34.64	27.43
320	4.96	34.86	300	4.95	34.84	27.57
429	4.36	34.85	400	4.50	34.85	27.63
639	3.85	34.86	600	3.90	34.86	27.71
849	3.66	34.87	800	3.70	34.87	27.74
1,063	3.65	34.88	1,000	3.65	34.88	27.74
1,599	3.49	34.895				

Station 6623; 11 April; 44°15.5′ N., 45°12′ W.; depth 4,572 m.; dynamic height 971.191.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	15.10	35.95	0	15.40	35.95	26.70
27	15.11	35.95	25	15.10	35.95	26.70
52	15.08	35.95	50	15.10	35.95	26.70
79	14.04	35.70	75	14.20	35.74	26.73
105	13.56	35.59	100	13.65	35.60	26.74
158	12.96	35.59	150	13.05	35.59	26.85
210	10.50	35.16	200	10.85	35.27	27.03
315	7.83	34.92	300	8.15	34.94	27.22
432	6.18	34.83	400	6.50	34.84	27.38
642	5.27	34.96	600	5.45	34.94	27.59
850	4.59	34.955	800	4.75	34.96	27.69
1,064	4.01	34.915	1,000	4.20	34.93	27.73
1,598	3.59	34.89				

Station 6624; 11 April; 44°57′ N., 45°08′ W.; depth 4,390 m.; dynamic height 971.290.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	14.21	35.88	0	14.21	35.88	26.83
26	14.27	35.88	25	14.25	35.88	26.83
51	14.26	35.88	50	14.25	35.88	26.83
77	14.26	35.89	75	14.25	35.88	26.83
102	14.27	35.88	100	14.25	35.88	26.83
154	13.76	35.78	150	13.80	35.79	26.85
205	13.51	35.73	200	13.55	35.74	26.87
307	12.47	35.58	300	12.55	35.59	26.95
381	11.09	35.40	400	10.60	35.34	27.13
578	6.16	34.895	600	6.05	34.90	27.49
782	5.18	34.98	800	5.10	34.98	27.66
986	4.42	34.93	1,000	4.40	34.93	27.70
1,513	3.68	34.89				

STATIONS OCCUPIED IN 1958—Continued

Station 6625; 12 April; 45°28′ N., 45°04′ W.; depth 4,134 m.; dynamic height 971.084.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	9.10	34.50	0	9.10	34.50	26.73
26	9.44	34.52	25	9.40	34.52	26.70
51	9.38	34.65	50	9.35	34.64	26.80
76	10.41	34.98	75	10.40	34.98	26.88
101	9.97	34.94	100	10.00	34.94	26.92
152	7.45	34.67	150	7.50	34.67	27.11
203	7.53	34.79	200	7.55	34.79	27.19
304	5.63	34.74	300	5.70	34.74	27.40
416	5.73	34.96	400	5.75	34.93	27.55
621	4.49	34.90	600	4.55	34.90	27.67
825	4.17	34.91	800	4.20	34.91	27.72
1,033	3.92	34.90	1,000	3.95	34.90	27.73
1,558	3.48	34.87				

Station 6626; 12 April 45°27′ N., 45°51′ W.; depth 3,466 m.; dynamic height 971.020.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	8.45	34.36	0	8.45	34.36	26.72
24	8.46	34.37	25	8.45	34.37	26.73
49	8.47	34.37	50	8.45	34.37	26.73
73	7.81	34.37	75	7.70	34.36	26.84
98	4.94	34.11	100	4.95	34.12	27.01
147	6.72	34.74	150	6.70	34.73	27.26
196	4.98	34.60	200	5.00	34.60	27.38
294	5.31	34.86	300	5.30	34.86	27.55
379	4.70	34.85	400	4.60	34.85	27.62
566	4.06	34.875	600	4.05	34.88	27.70
760	4.06	34.91	800	4.00	34.91	27.74
956	3.73	34.89	1,000	3.70	34.89	27.75
1,454	3.43	34.88				

Station 6627; 12 April; 45°27′ N., 46°43′ W.; depth 3.017 m.; dynamic height 971.027.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	9.55	34.71	0	9.55	34.71	26.82
25	9.54	34.71	25	9.54	34.71	26.82
50	9.53	34.71	50	9.53	34.71	26.82
74	9.54	34.71	75	9.55	34.71	26.82
99	9.47	34.70	100	9.45	34.70	26.83
149	7.58	34.80	150	7.60	34.80	27.20
198	6.57	34.78	200	6.50	34.78	27.33
297	4.37	34.74	300	4.35	34.74	27.56
397	4.47	34.85	400	4.45	34.85	27.63
590	4.31	34.915	600	4.30	34.91	27.70
779	4.02	34.915	800	4.00	34.91	27.74
977	3.75	34.90	1,000	3.75	34.90	27.75
1,477	3.48	34.88				

Station 6628; 12 April; 45°24′ N., 47°26′ W.; depth 2,743 m.; dynamic height 971.004.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	8.75	34.42	0	8.75	34.42	26.73
25	8.48	34.46	25	8.48	34.46	26.79
50	8.56	34.49	50	8.56	34.49	26.81
75	8.25	34.58	75	8.25	34.58	26.92
100	7.22	34.70	100	7.22	34.70	27.17
150	7.07	34.83	150	7.07	34.83	27.29
199	6.27	34.87	200	6.25	34.87	27.44
299	5.16	34.86	300	5.15	34.86	27.57
403	4.13	34.80	400	4.15	34.80	27.63
602	3.82	34.83	600	3.75	34.83	27.69
798	3.97	34.90	800	3.95	34.90	27.73
999	3.46	34.84	1,000	3.45	34.84	27.73
1,500	3.39	34.875				

Station 6629; 12 April; 45°34′ N., 47°43′ W.; depth 1,463 m.; dynamic height 970.947.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	2.70	33.62	0	2.70	33.62	26.83
25	3.22	33.76	25	3.22	33.76	26.89
50	3.52	34.00	50	3.52	34.00	27.06
75	1.86	33.96	75	1.86	33.96	27.17
99	2.94	34.28	100	3.00	34.29	27.34
149	4.50	34.70	150	4.50	34.70	27.51
199	4.28	34.72	200	4.25	34.72	27.56
298	4.09	34.80	300	4.10	34.80	27.64
372	4.09	34.83	400	4.05	34.84	27.67
559	3.82	34.85	600	3.75	34.85	27.71
746	3.60	34.84	800	3.60	34.84	27.72
940	3.52	34.83	1,000	3.50	34.83	27.72
1,337	3.42	34.83				

Station 6630; 12 April; 45°42.5′ N., 47°58′ W.; depth 622 m.; dynamic height 971.026.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	1.14	32.76	0	1.14	32.76	26.26
25	0.23	33.66	25	0.23	33.66	27.04
49	0.86	33.93	50	0.90	33.93	27.21
74	0.99	34.04	75	1.00	34.04	27.29
99	1.12	34.11	100	1.15	34.11	27.34
148	1.29	34.13	150	1.30	34.13	27.34
197	1.51	34.21	200	1.50	34.21	27.40
296	1.62	34.24	300	1.65	34.24	27.41
394	2.20	34.38	400	2.25	34.39	27.48
587	3.86	34.74	(600)	3.95	34.76	27.62

Station 6631; 12 April; 45°46′ N., 48°06′ W.; depth 169 m.; dynamic height 971.120.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.95	32.76	0	0.95	32.76	26.27
24	0.30	32.83	25	0.30	32.83	26.36
48	−0.09	32.97	50	−0.10	32.99	26.51
73	−0.32	33.24	75	−0.30	33.26	26.73
97	−0.04	33.40	100	−0.05	33.40	26.84
145	0.01	33.42	150	0.00	33.42	26.86

Station 6632; 13 April; 45°49′ N., 48°10′ W.; depth 108 m.; dynamic height 971.131.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.81	32.75	0	0.81	32.75	26.28
24	0.51	32.74	25	0.50	32.74	26.28
48	0.27	32.90	50	0.25	32.92	26.44
73	−0.39	33.16	75	−0.40	33.16	26.66
2	−0.39	33.165	(100)	−0.40	33.17	26.67

Station 6633; 13 April; 45°55′ N., 48°18′ W.; depth 89 m.; dynamic height 971.132.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	0.87	32.73	0	0.87	32.73	26.25
25	0.84	33.74	25	0.84	32.74	26.27
51	0.29	32.90	50	.30	32.90	26.42
76	−0.33	33.16	75	−0.30	33.15	26.64

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6634; 13 April; 46°03.5′ N., 48°34′ W.; depth 73 m.; dynamic height 971.134.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.40	32.79	0	1.40	32.79	26.27
24	1.39	32.80	25	1.40	32.80	26.28
48	1.19	32.82	50	1.15	32.84	26.33
62	0.04	33.10	[75]	−0.25	33.15	26.64

Station 6635; 13 April; 46°12′ N., 48°47′ W.; depth 73 m.; dynamic height 971.135.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.30	32.78	0	1.30	32.78	26.27
23	1.36	32.78	25	1.35	32.78	26.26
47	1.37	32.77	50	1.35	32.77	26.25
61	1.28	32.78	[75]	1.15	32.79	26.29

Sta. 6636; 13 April; 46°10.5′ N., 48°26′ W.; depth 89 m.; dynamic height 971.134.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.32	32.79	0	1.22	32.79	26.28
24	1.20	32.75	25	1.20	32.75	26.26
49	1.07	32.76	50	1.05	32.77	26.28
73	−0.26	33.28	(75)	−0.35	33.31	26.77

Station 6637; 13 April; 46°09.5′ N., 48°00′ W.; depth 115 m.; dynamic height 971.119.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.03	32.74	0	1.03	32.74	26.26
27	0.99	32.76	25	1.00	32.75	26.26
54	0.07	32.90	50	0.20	32.87	26.40
81	−0.30	33.20	75	−0.25	33.14	26.64
108	−0.31	33.34	100	−0.30	33.30	26.76

Station 6638; 13 April; 46°08.5′ N., 47°42′ W.; depth 169 m.; dynamic height 971.098.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.41	32.96	0	0.41	33.96	26.46
26	0.32	32.95	25	0.35	32.95	26.46
52	−0.02	33.10	50	0.00	33.08	26.58
78	−0.21	33.32	75	−0.20	33.28	26.75
104	0.07	33.56	100	0.05	33.52	26.94
155	0.45	33.77	150	0.45	33.75	27.09

Station 6639; 13 April; 46°07′ N., 47°24′ W.; depth 631 m.; dynamic height 971.037.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.27	32.92	0	0.27	32.92	26.44
26	0.15	32.96	25	0.20	32.95	26.46
51	−0.04	33.41	50	−0.05	33.40	26.84
77	0.46	33.68	75	0.40	33.66	27.03
103	0.78	33.87	100	0.75	33.85	27.16
153	1.33	34.14	150	1.30	34.13	27.34
205	1.76	34.26	200	1.70	34.25	27.41
308	2.42	34.44	300	2.35	34.43	27.50
408	3.22	34.58	400	3.15	34.57	27.55
605	4.02	34.81	600	4.00	34.80	27.65

Station 6640; 13 April; 46°07′ N., 47°10′ W.; depth 1,463 m.; dynamic height 970.973.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.78	33.34	0	0.78	33.34	26.74
25	0.76	33.36	25	0.76	33.36	26.76
50	1.01	33.62	50	1.01	33.62	26.96
75	1.69	34.05	75	1.69	34.05	27.25
100	2.54	34.26	100	2.54	34.26	27.36
150	2.46	34.36	150	2.46	34.36	27.44
200	2.75	34.50	200	2.75	34.50	27.53
300	3.43	34.65	300	3.43	34.65	27.58
397	3.95	34.75	400	3.95	34.75	27.61
593	3.97	34.835	600	3.95	34.84	27.68
787	3.61	34.84	800	3.60	34.84	27.72
987	3.52	34.84	1,000	3.50	34.84	27.73
1,391	3.46	34.85				

Station 6641; 13 April; 46°05.5′ N., 46°35′ W.; depth 732 m.; dynamic height 970.971.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.93	33.98	0	5.93	33.98	26.78
21	5.91	33.99	25	5.90	33.99	26.79
42	5.91	34.01	50	5.90	34.02	26.81
64	5.88	34.06	75	5.50	34.10	26.92
85	4.98	34.15	100	4.15	34.20	27.16
128	2.66	34.29	150	3.45	34.44	27.41
170	4.31	34.62	200	4.60	34.73	27.52
255	4.84	34.87	300	4.50	34.86	27.64
241	4.82	34.84	(400)	3.95	34.84	27.68
361	3.92	34.84	(600)	4.00	34.87	27.71

Station 6642; 13–14 April; 46°04.5′ N., 45°55′ W.; depth 1,893 m.; dynamic height 970.972.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.98	34.04	0	5.98	34.04	26.81
23	5.87	34.06	25	5.85	34.06	26.85
44	5.71	34.08	50	5.65	34.08	26.89
67	5.48	34.08	75	4.90	34.07	26.97
88	3.75	34.06	100	3.70	34.10	27.12
133	3.63	34.32	150	4.00	34.44	27.36
178	4.34	34.62	200	4.35	34.70	27.53
266	4.34	34.80	300	4.25	34.80	27.62
331	4.21	34.80	400	4.30	34.84	27.65
503	4.38	34.91	600	4.25	34.91	27.71
680	4.02	34.905	800	3.80	34.89	27.74
867	3.69	....	1,000	3.60	34.87	27.75
1,365	3.38	34.86				

Station 6643; 14 April; 46°03′ N., 45°23′ W.; depth 4,407 m.; dynamic height 970.961.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	8.09	34.36	0	8.09	34.36	26.78
27	7.92	34.36	25	7.95	34.36	26.80
52	7.04	34.26	50	7.15	34.26	26.84
79	6.26	34.36	75	6.40	34.34	27.00
105	5.91	34.56	100	5.95	34.52	27.20
158	5.84	34.74	150	5.85	34.73	27.37
210	3.93	34.66	200	4.20	34.67	27.53
315	3.89	34.78	300	3.90	34.76	27.63
376	3.96	34.84	400	3.95	34.84	27.68
565	3.65	34.85	600	3.60	34.85	27.73
756	3.46	34.85	800	3.45	34.85	27.74
951	3.40	34.85	1,000	3.40	34.85	27.75
1,450	3.38	34.86				

STATIONS OCCUPIED IN 1958—Continued

Station 6644; 14 April; 46°01.5′ N., 44°45′ W.; depth 3,581 m.; dynamic height 970.963.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	8.36	34.53	0	8.36	34.53	26.87
26	8.36	34.53	25	8.35	34.53	26.87
51	4.36	34.11	50	4.35	34.11	27.06
77	4.47	34.21	75	4.45	34.20	27.12
102	5.70	34.46	100	5.55	34.43	27.17
154	6.22	34.80	150	6.20	34.80	27.39
206	3.72	34.58	200	3.85	34.60	27.50
306	4.00	34.77	300	4.00	34.76	27.62
375	4.00	34.80	400	4.00	34.81	27.66
563	3.82	34.85	600	3.75	34.85	27.71
751	3.58	34.85	800	3.55	34.85	27.73
961	3.49	....	1,000	3.50	34.86	27.75
1,527	3.36	34.87				

Station 6645; 14 April; 46°19.5′ N., 44°45′ W.; depth 2,459 m.; dynamic height 970.932.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.71	33.98	0	4.71	33.98	26.92
26	4.67	33.99	25	4.70	33.99	26.93
52	3.74	34.04	50	3.80	34.03	27.05
78	3.69	34.15	75	3.70	34.13	27.14
104	3.67	34.33	100	3.70	34.30	27.28
156	3.40	34.63	150	3.40	34.60	27.55
208	4.03	34.74	200	4.00	34.73	27.59
312	4.01	34.82	300	4.00	34.82	27.67
412	3.87	34.83	400	3.90	34.83	27.68
612	3.60	34.835	600	3.60	34.83	27.71
809	3.46	34.845	800	3.50	34.84	27.73
1,012	3.39	34.86	1,000	3.40	34.86	27.76
1,523	3.39	34.86				

Station 6646; 14 April; 46°26′ N., 45°45′ W.; depth 622 m.; dynamic height 970.924.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.67	33.95	0	4.67	33.95	26.90
24	4.61	33.97	25	4.60	33.97	26.93
49	4.54	34.17	50	4.55	34.17	27.09
73	3.55	34.21	75	3.55	34.22	27.23
98	3.69	34.44	100	3.70	34.45	27.40
146	3.88	34.70	150	3.90	34.71	27.59
195	3.88	34.77	200	3.85	34.77	27.64
293	3.85	34.78	300	3.85	34.78	27.64
405	3.81	34.81	400	3.85	34.81	27.67
597	3.68	34.82	600	3.70	34.82	27.70

Station 6647; 14 April; 46°36′ N., 44°44′ W.; depth 220 m.; dynamic height 970.930.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.65	33.96	0	4.65	33.96	26.91
25	4.62	33.97	25	4.62	33.97	26.92
50	4.33	34.00	50	4.33	34.00	26.97
75	3.95	34.18	75	3.95	34.18	27.16
100	3.38	34.34	100	3.38	34.34	27.34
151	3.80	34.68	150	3.80	34.68	27.57
201	3.77	34.76	200	3.80	34.76	27.64

Station 6648; 14 April; 46°42.5′ N., 44°44′ W.; depth 169 m.; dynamic height 970.947.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.74	33.98	0	4.74	33.98	26.91
25	4.70	33.99	25	4.70	33.99	26.93
51	4.49	34.05	50	4.50	34.05	27.00
76	4.15	34.11	75	4.15	34.10	27.08
102	3.94	34.20	100	3.95	34.19	27.17
153	3.68	34.42	150	3.70	34.40	27.36

Station 6649; 14 April; 46°47′ N., 44°44′ W.; depth 137 m.; dynamic height 970.946.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.73	33.98	0	4.73	33.98	26.92
23	4.72	33.99	25	4.70	33.99	26.93
47	4.52	34.02	50	4.50	34.03	26.98
70	4.31	34.07	75	4.25	34.08	27.05
94	4.10	34.12	100	4.00	34.15	27.13
117	3.79	34.28	[150]	3.75	34.42	27.37

Station 6650; 14 April; 46°47′ N., 44°58′ W.; depth 169 m.; dynamic height 970.938.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.63	34.00	0	4.63	34.00	26.94
25	4.62	34.02	25	4.62	34.02	26.96
50	4.57	34.10	50	4.57	34.10	27.03
75	3.94	34.18	75	3.94	34.18	27.16
100	3.67	34.21	100	3.67	34.21	27.21
150	3.80	34.35	150	3.80	34.35	27.31

Station 6651; 14 April; 46°47′ N., 45°16′ W.; depth 220 m.; dynamic height 970.929.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.41	34.08	0	5.41	34.08	26.92
25	5.49	34.09	25	5.49	34.09	26.91
50	5.34	34.10	50	5.34	34.10	26.94
74	3.65	34.18	75	3.65	34.18	27.19
99	3.64	34.32	100	3.65	34.33	27.31
149	3.85	34.58	150	3.85	34.58	27.48
198	3.82	34.68	200	3.85	34.68	27.56

Station 6652; 14 April; 46°47′ N., 45°41′ W.; depth 276 m.; dynamic height 970.950.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.84	34.31	0	7.84	34.31	26.78
24	7.74	34.30	25	7.75	34.30	26.78
49	6.97	34.21	50	6.95	34.21	26.83
73	5.33	34.12	75	5.25	34.12	26.97
98	4.58	34.36	100	4.60	34.38	27.25
146	6.17	34.82	150	6.05	34.81	27.42
195	4.08	34.59	200	4.00	34.60	27.49
244	3.78	34.75	[300]	4.05	34.87	27.70

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6653; 14 April; 46°47′ N., 46°08′ W.; depth 320 m.; dynamic height 970.835.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	5.15	34.00	0	5.15	34.00	26.89
25	5.14	34.01	25	5.14	34.01	26.90
50	5.10	34.06	50	5.10	34.06	26.94
75	5.06	34.10	75	5.06	34.10	26.98
100	4.07	34.34	100	4.07	34.34	27.28
150	4.53	34.66	150	4.53	34.66	27.48
199	3.93	34.67	200	3.95	34.67	27.55
299	4.11	34.87	300	4.10	34.87	27.70

Station 6654; 15 April; 46°47′ N., 46°36′ W.; depth 622 m.; dynamic height 970.887.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	3.39	33.72	0	3.39	33.72	26.85
24	2.34	34.17	25	2.35	34.17	27.30
48	2.66	34.43	50	2.70	34.44	27.48
71	3.28	34.58	75	3.45	34.61	27.55
95	3.90	34.72	100	3.90	34.72	27.60
143	4.00	34.74	150	4.00	34.74	27.60
190	4.03	34.77	200	4.05	34.78	27.62
285	4.08	34.80	300	4.10	34.81	27.65
383	4.27	34.89	400	4.25	34.89	27.69
578	3.84	34.87	(600)	3.80	34.87	27.73

Station 6655; 15 April; 46°47′ N., 47°00′ W.; depth 1,143 m.; dynamic height 970.974.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	0.89	33.48	0	0.89	33.48	26.85
23	0.81	33.49	25	0.80	33.49	26.86
45	0.71	33.57	50	0.75	33.59	26.95
68	0.96	33.70	75	1.00	33.77	27.08
90	1.03	33.99	100	1.15	34.04	27.28
135	1.76	34.21	150	2.00	34.28	27.41
181	2.46	34.41	200	2.65	34.46	27.51
271	3.19	34.62	300	3.50	34.67	27.60
334	3.73	34.73	400	3.90	34.79	27.65
510	4.00	34.845	600	3.90	34.84	27.69
693	3.80	34.82	800	3.65	34.82	27.70
939	3.55	34.84	(1,000)	3.55	34.85	27.73

Station 6656; 15 April; 46°47′ N., 47°17′ W.; depth 622 m.; dynamic height 971.010.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	0.38	32.98	0	0.38	32.98	26.48
24	0.46	33.47	25	0.45	33.47	26.87
48	0.51	33.57	50	0.55	33.58	26.95
72	0.83	33.84	75	0.85	33.85	27.15
97	0.94	33.94	100	0.95	33.95	27.22
145	1.46	34.13	150	1.50	34.15	27.35
193	1.96	34.32	200	2.00	34.34	27.46
290	2.92	34.53	300	3.00	34.55	27.55
403	3.80	34.705	400	3.80	34.70	27.59
600	4.05	34.82	600	4.05	34.82	27.66

Station 6657; 15 April; 46°47′ N., 47°24′ W.; depth 320 m.; dynamic height 971.049.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	0.21	32.75	0	0.21	32.75	26.30
25	0.05	32.98	25	0.05	32.98	26.50
50	−0.05	33.14	50	−0.05	33.14	26.63
75	0.11	33.51	75	0.11	33.51	26.92
100	0.31	33.70	100	0.31	33.70	27.06
150	1.43	34.14	150	1.43	34.14	27.35
200	1.86	34.30	200	1.86	34.30	27.44
300	2.57	34.48	300	2.57	34.48	27.53

Station 6658; 15 April; 46°47′ N., 47°44′ W.; depth 169 m.; dynamic height 971.120.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	0.57	32.72	0	0.57	32.72	26.26
25	0.17	32.79	25	0.17	32.79	26.34
50	−0.14	32.90	50	−0.14	32.90	26.44
75	−0.53	33.03	75	−0.53	33.03	26.56
100	−0.34	33.17	100	−0.34	33.17	26.66
150	0.01	33.48	150	0.01	33.48	26.90

Station 6659; 15 April; 46°47′ N., 48°17′ W.; depth 112 m.; dynamic height 971.130.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	1.29	32.70	0	1.29	32.70	26.20
26	0.91	32.71	25	0.95	32.71	26.23
52	0.76	32.72	50	0.80	32.72	26.25
78	−0.41	33.07	75	−0.35	33.03	26.55
104	−0.33	33.24	100	−0.35	33.22	26.70

Station 6660; 15 April; 46°47′ N., 48°52′ W.; depth 80 m.; dynamic height 971.133.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	1.74	32.72	0	1.74	32.72	26.19
25	1.29	32.71	25	1.29	32.71	26.21
50	1.17	32.74	50	1.17	32.74	26.25
70	0.30	32.92	(75)	0.05	32.96	26.48

Station 6661; 27 April; 49°59.5′ N., 49°01′ W.; depth 2,158 m.; dynamic height 970.868.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ_t
0	2.28	34.34	0	2.28	34.34	27.44
23	2.34	34.33	25	2.35	34.33	27.42
45	2.33	34.34	50	2.35	34.34	27.43
68	2.25	34.36	75	2.25	34.40	27.49
90	2.46	34.48	100	2.55	34.53	27.57
135	3.06	34.67	150	3.20	34.70	27.65
181	3.44	34.75	200	3.50	34.77	27.68
271	3.70	34.81	300	3.75	34.82	27.69
358	3.73	34.82	400	3.75	34.83	27.69
539	3.71	34.85	600	3.65	34.85	27.72
722	3.54	34.855	800	3.50	34.85	27.74
922	3.45	34.85	1,000	3.40	34.86	27.76
1,401	3.30	34.89				

STATIONS OCCUPIED IN 1958—Continued

Station 6662; 27 April; 49°49′ N., 49°31′ W.; depth 1,701 m.; dynamic height 970.894.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	1.66	34.08	0......	1.66	34.08	27.28
21......	1.67	34.09	25.....	1.70	34.09	27.28
40......	1.69	34.09	50.....	1.65	34.12	27.32
61......	1.64	34.18	75.....	1.65	34.20	27.38
81......	1.70	34.22	100....	2.05	34.34	27.46
122.....	2.58	34.53	150....	2.75	34.59	27.60
162.....	2.85	34.61	200....	3.20	34.69	27.64
243.....	3.59	34.75	300....	3.65	34.76	27.65
300.....	......	34.76	400....	3.65	34.79	27.67
457.....	3.68	34.81	600....	3.70	34.85	27.72
618.....	3.70	34.85	800....	3.55	34.86	27.74
800.....	3.52	34.865	1,000..	3.45	34.87	27.76
1,304...	3.38	34.865				

Station 6663; 27 April; 49°38′ N., 50°03′ W.; depth 612 m.; dynamic height 971.038.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	0.14	32.89	0......	0.14	32.89	26.41
27......	0.11	32.97	25.....	0.10	32.96	26.48
53......	0.20	33.06	50.....	0.20	33.04	26.54
80......	0.01	33.13	75.....	0.05	33.11	26.60
106.....	0.59	33.68	100....	0.45	33.52	26.91
160.....	0.79	33.94	150....	0.75	33.89	27.19
212.....	1.53	34.24	200....	1.30	34.18	27.38
318.....	2.72	34.515	300....	2.55	34.48	27.53
376....	3.09	34 59	400....	3.20	34.62	27.59
575.....	3.85	34.85	(600)...	3.85	34.86	27.71

Station 6664; 27 April; 49°29.5′ N., 50°37′ W.; depth 338 m.; dynamic height 970.996.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	0.41	33.01	0......	0.41	33.01	26.51
25......	0.39	33.04	25.....	0.39	33.04	26.53
50......	−0.02	33.21	50.....	−0.02	33.21	26.69
75......	0.08	33.46	75.....	0.08	33.46	26.88
100.....	0.30	33.78	100....	0.30	33.78	27.12
150.....	0.84	34.00	150....	0.84	34.00	27.27
200.....	1.52	34.23	200....	1.52	34.23	27.41
300.....	3.25	34.64	300....	3.25	34.64	27.59

Station 6665; 27 April; 49°23′ N., 51°02′ W.; depth 348 m.; dynamic height 971.047.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	−0.71	32.47	0......	−0.71	32.47	26.12
24......	−0.34	32.72	25.....	−0.35	32.74	26.32
47......	−0.02	33.10	50.....	0.00	33.12	26.61
71......	−0.02	33.22	75.....	0.00	33.22	26.69
94......	−0.20	33.27	100....	−0.20	33.31	26.77
141.....	−0.09	33.69	150....	0.00	33.74	27.11
188.....	0.81	33.95	200....	1.00	34.00	27.26
282.....	2.14	34.37	(300)...	2.35	34.45	27.52

Station 6666; 27 April; 49°11.5′ N., 51°34′ W.; depth 320 m.; dynamic height 971.113.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	−1.21	32.17	0......	−1.21	32.17	25.89
24......	−1.26	32.18	25.....	−1.25	32.19	25.90
49......	−1.57	32.65	50.....	−1.55	32.66	26.29
73......	−1.53	32.80	75.....	−1.50	32.80	26.41
97......	−1.36	32.90	100....	−1.35	32.92	26.50
146.....	−0.04	33.40	150....	0.00	33.43	26.86
195.....	0.60	33.68	200....	0.65	33.71	27.05
292.....	2.00	34.335	(300)...	2.15	34.38	27.48

Station 6667; 27 April; 49°03.5′ N., 51°54′ W.; depth 307 m.; dynamic height 971.143.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	−1.07	32.23	0......	−1.07	32.23	25.93
24......	−1.09	32.24	25.....	−1.10	32.24	25.94
48......	−1.57	32.66	50.....	−1.55	32.67	26.30
73......	−1.48	32.78	75.....	−1.45	32.78	26.39
97......	−1.32	32.87	100....	−1.30	32.88	26.46
145.....	−0.95	33.06	150....	−0.95	33.08	26.61
194.....	−0.38	33.38	200....	−0.35	33.42	26.87
286.....	1.00	34.02	(300)...	1.25	34.09	27.32

Station 6668; 27 April; 48°59′ N., 52°07′ W.; depth 302 m.; dynamic height 971.171.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	−1.06	32.31	0......	−1.06	32.31	26.00
22......	−1.06	32.32	25.....	−1.10	32.34	26.03
44......	−1.47	32.48	50.....	−1.50	32.51	26.17
66......	−1.55	32.61	75.....	−1.55	32.66	26.29
88......	−1.48	32.74	100....	−1.45	32.77	26.38
132.....	−1.29	32.85	150....	−1.05	32.95	26.52
177.....	−0.57	33.17	200....	−0.30	33.30	26.76
256.....	0.36	33.58	(300)...	0.85	33.79	27.10

Station 6669; 27 April; 48°54′ N., 52°24′ W.; depth 357 m.; dynamic height 971.173.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	−0.48	32.28	0......	−0.48	32.28	25.95
23......	−0.83	32.29	25.....	−0.85	32.29	25.97
47......	−0.16	32.31	50.....	−0.20	32.34	26.00
70......	−0.92	32.66	75.....	−1.00	32.69	26.30
94......	−1.33	32.77	100....	−1.30	32.78	26.38
141.....	−1.10	32.88	150....	−1.05	32.90	26.47
187.....	−0.83	33.02	200....	−0.70	33.13	26.65
281.....	0.90	33.92	(300)...	1.15	34.06	27.30

Station 6670; 28 April; 48°49.5′ N., 52°39′ W.; depth 220 m.; dynamic height 971.200.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	0.00	32.11	0......	0.00	32.11	25.80
25......	0.00	32.11	25.....	0.00	32.11	25.80
50......	−1.47	32.54	50.....	−1.47	32.54	26.20
76......	−1.33	32.65	75.....	−1.35	32.65	26.28
101.....	−1.36	32.74	100....	−1.35	32.74	26.35
151.....	−1.26	32.82	150....	−1.25	32.82	26.42
202.....	−1.19	32.93	200....	−1.20	32.93	26.50

Station 6671; 28 April; 48°47′ N., 52°47′ W.; depth 146 m.; dynamic height 971.196.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0......	−0.56	32.09	0......	−0.56	32.09	25.80
24......	−0.55	32.09	25.....	−0.55	32.09	25.80
49......	−1.43	32.50	50.....	−1.40	32.51	26.17
73......	−1.25	32.67	75.....	−1.25	32.67	26.30
98......	−1.31	32.73	100....	−1.35	32.73	26.34
122.....	−1.32	32.74	[150]....	−1.30	32.75	26.36

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STATIONS OCCUPIED IN 1958—Continued

Station 6672; 28 April; 48°44′ N., 52°58′ W.; depth 101 m.; dynamic height 971.212.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	−0.52	32.07	0......	−0.52	32.07	25.79
27......	−0.52	32.06	25.....	−0.50	32.06	25.78
53......	−1.25	32.34	50.....	−1.20	32.31	26.00
80......	−1.34	32.48	75.....	−1.35	32.46	26.13
			(100)...	−1.35	32.55	26.20

Station 6673; 28 April; 48°37′ N., 52°43′ W.; depth 252 m.; dynamic height 971.184.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	−0.27	32.56	0......	−0.27	32.56	26.17
24......	−0.37	32.57	25.....	−0.35	32.57	26.18
48......	−1.07	32.58	50.....	−1.10	32.58	26.22
72......	−1.45	32.72	75.....	−1.45	32.72	26.34
96......	−1.48	32.74	100....	−1.50	32.74	26.36
144.....	−1.28	32.81	150....	−1.25	32.85	26.44
192.....	−0.20	33.32	(200)...	0.00	33.42	26.86

Station 6674; 28 April; 49°31′ N., 52°29′ W.; depth 223 m.; dynamic height 971.161.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	0.05	32.62	0......	0.05	32.62	26.21
25......	0.02	32.64	25.....	0.02	32.64	26.23
50......	−0.55	32.71	50.....	−0.55	32.71	26.30
75......	−0.90	32.84	75.....	−0.90	32.84	26.42
100.....	−0.79	32.96	100....	−0.79	32.96	26.51
150.....	−0.45	33.18	150....	−0.45	33.18	26.68
200.....	0.18	33.46	200....	0.18	33.46	26.88

Station 6675; 28 April; 48°19′ N., 52°02′ W.; depth 187 m.; dynamic height 971.179.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	0.20	32.51	0......	0.20	32.51	26.11
23......	0.15	32.53	25.....	0.15	32.53	26.13
46......	0.09	32.52	50.....	−0.05	32.53	26.14
69......	−0.91	32.68	75.....	−1.00	32.72	26.33
92......	−1.15	32.83	100....	−1.15	32.85	26.44
138.....	−0.94	32.94	150....	−0.70	33.04	26.58
161.....	−0.51	33.16	[200]...	0.25	33.36	26.79

Station 6676; 28 April; 48°12′ N., 51°48′ W.; depth 190 m.; dynamic height 971.176.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	0 20	32.46	0......	0.20	32.46	26.07
24......	0.17	32.49	25.....	0.15	32.49	26.09
48......	−0.11	32.48	50.....	−0.20	32.48	26.11
72......	−1.07	32.79	75.....	−1.05	32.82	26.41
96......	−1.15	32.90	100....	−1.15	32.91	26.48
143.....	−0.69	33.03	150....	−0.60	33.09	26.60
172.....	−0.31	33.27	[200]...	0.05	33.44	26.87

Station 6677; 28 April; 48°01.5′ N., 51°23′ W.; depth 183 m.; dynamic height 971.163.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	0.53	32.50	0......	0.53	32.50	26.08
25......	0.32	32.54	25.....	0.32	32.54	26.13
49......	−0.40	32.65	50.....	−0.45	32.66	26.26
74......	−1.05	32.79	75.....	−1.05	32.80	26.40
98......	−0.87	32.92	100....	−0.85	32.93	26.49
147.....	−0.52	33.27	150....	−0.50	33.29	26.76
172.....	−0.50	33.38	[200]...	−0.45	33.47	26.92

Station 6678; 28 April; 47°53′ N., 51°06′ W.; depth 161 m.; dynamic height 971.168.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	0.52	32.48	0......	0.52	32.48	26.07
25......	0.39	32.47	25.....	0.39	32.47	26.07
50......	0.10	32.49	50.....	0.10	32.49	26.09
74......	−1.16	32.75	75.....	−1.15	32.75	26.36
99......	−1.02	32.89	100....	−1.00	32.89	26.46
144.....	−0.54	33.30	(150)...	−0.50	33.36	26.82

Station 6679; 28 April; 47°45′ N., 50°51′ W.; depth 117 m.; dynamic height 971.162.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	0.97	32.52	0......	0.97	32.52	26.08
25......	0.86	32.52	25.....	0.86	32.52	26.08
51......	0.78	32.53	50.....	0.80	32.53	26.10
76......	0.33	32.80	75.....	0.35	32.78	26.32
102.....	−0.31	33.21	100....	−0.25	33.18	26.67

Station 6680; 28 April; 47°39′ N., 50°36′ W.; depth 119 m.; dynamic height 971.165.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	1.46	32.62	0......	1.46	32.62	26.13
25......	1.41	32.62	25.....	1.41	32.62	26.13
50......	1.31	32.63	50.....	1.31	32.63	26.15
76......	0.73	32.68	75.....	0.75	32.68	26.22
101.....	−0.22	33.03	100....	−0.20	33.02	26.54

Station 6681; 28 April; 47°32.5′ N., 50°19′ W.; depth 119 m.; dynamic height 971.160.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	1.66	32.68	0......	1.66	32.68	26.16
26......	1.62	32.66	25.....	1.65	32.66	26.14
52......	1.49	32.68	50.....	1.50	32.67	26.16
78......	0.92	32.83	75.....	1.00	32.81	26.32
104.....	−0.18	33.16	100....	0.05	33.10	26.59

Station 6682; 28 April; 47°23.5′ N., 49°59′ W.; depth 82 m.; dynamic height 971.151.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	1.93	32.75	0......	1.93	32.75	26.20
25......	1.93	32.77	25.....	1.93	32.77	26.22
50......	1.78	32.74	50.....	1.78	32.74	26.20
70......	0.41	32.91	(75)....	0.10	32.98	26.50

Station 6683; 29 April; 47°41′ N., 49°52′ W.; depth 116 m.; dynamic height 971.160.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0.......	1.18	32.62	0......	1.18	32.62	26.15
26......	1.19	32.62	25.....	1.20	32.62	26.15
52......	1.09	32.62	50.....	1.10	32.62	26.15
78......	0.00	32.75	75.....	0.10	32.73	26.30
104.....	−0.32	33.17	100....	−0.30	33.12	26.62

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t

Station 6684; 29 April; 48°01.5′ N., 49°48′ W.; depth 169 m.; dynamic height 971.157.

0.......	0.27	32.66	0......	0.27	33.66	26.23
24......	0.26	32.67	25.....	0.25	32.67	26.24
48......	0.25	32.66	50.....	0.20	32.67	26.24
72......	−0.90	32.86	75.....	0.90	32.88	26.45
96......	−0.59	32.99	100....	−0 55	33.00	26.54
144.....	−0.34	33.26	(150)...	−0.30	33.29	26.75

Station 6685; 29 April; 48°17′ N., 49°43′ W.; depth 220 m.; dynamic height 971.116.

0.......	−0.11	32.74	0......	−0.11	32.74	26.31
25......	−0.84	32.83	25.....	−0.84	32.83	26.41
50......	−0.56	33.10	50.....	−0.56	33.10	26.61
75......	−0.23	33.26	75.....	−0.23	33.26	26.73
100.....	0.05	33.41	100....	0.05	33.41	26.85
149.....	0.46	33.63	150....	0.45	33.63	26.99
199.....	0.48	33.64	200....	0.50	33.64	27.00

Station 6686; 29 April; 48°36′ N., 49°38′ W.; depth 603 m.; dynamic height 971.146.

0.......	−0.31	32.54	0......	−0.31	32.54	26.16
25......	−1.09	32.64	25.....	−1.09	32.64	26.27
50......	−0.63	32.82	50.....	−0.63	32.82	26.40
75......	−0.76	32.98	75.....	−0.76	32.98	26.53
101.....	−0.64	33.07	100....	−0.65	33.06	26.59
151.....	0.00	33.36	150....	0.00	33.35	26.80
201.....	0.60	33.79	200....	0.55	33.77	27.11
302.....	0.85	34.04	300....	0.85	34.03	27.29
370.....	1.91	34.32	400....	2.25	34.43	27.51
564.....	3.75	34.825	(600)...	3.90	34.83	27.68

Station 6687; 29 April; 48°46′ N., 49°35′ W.; depth 1,225 m.; dynamic height 971.101.

0.......	−0.17	32.52	0......	−0.17	32.52	26.14
22......	−0.60	32.68	25.....	−0.60	32.69	26.28
44......	−0.48	32.86	50.....	−0.55	32.89	26.44
67......	−0.73	32.98	75.....	−0.70	33.01	26.56
89......	−0.61	33.08	100....	−0.45	33.14	26.65
133.....	0.08	33.41	150....	0.25	33.53	26.93
177.....	0.59	33.74	200....	0.80	33.88	27.17
266.....	1.51	34.25	300....	1.90	34.38	27.50
355.....	2.81	34.54	400....	3.20	34.63	27.59
543.....	3.76	34.79	600....	3.80	34.82	27.69
739.....	3.83	34.85	800....	3.75	34.85	27.71
947.....	3.52	32.85	1,000..	3.50	34.85	27.74

Station 6688; 29 April; 49°06.5′ N., 49°28′ W.; depth 1,417 m.; dynamic height 970.983.

0.......	0.80	33.18	0......	0.80	33.18	26.62
21......	0.51	33.40	25.....	0.50	33.40	26.81
42......	0.45	33.41	50.....	0.30	33.44	26.85
63......	−0.04	33.52	75.....	0.10	33.64	27.02
84......	0.20	33.77	100....	0.45	33.87	27.19
125.....	0.93	34.01	150....	1.25	34.15	27.37
167.....	1.50	34.26	200....	1.85	34.37	27.50
251.....	2.57	34.52	300....	3.00	34.62	27.61
224.....	1.97	34.45	400....	3.90	34.77	27.64
332.....	3.51	34.68	600....	3.95	34.85	27.69
436.....	3.99	34.81	800....	3.70	34.85	27.72
584.....	3.98	34.845	(1,000)	3.55	34.85	27.73
923.....	3.59	34.85				

Station 6689; 29 April; 49°32′ N., 49°21′ W.; depth 1,464 m.; dynamic height 970.908.

0.......	1.72	34.00	0......	1.72	34.00	27.21
27......	1.50	34.01	25.....	1.50	34.01	27.24
52......	1.38	34.05	50.....	1.40	34.04	27.27
79......	1.55	34.15	75.....	1.50	34.11	27.32
105.....	2.28	34.46	100....	2.10	34.39	27.49
158.....	2.83	34.59	150....	2.75	34.58	27.59
210.....	3.13	34.64	200....	3.10	34.63	27.60
315.....	3.67	34.76	300....	3.60	34.75	27.65
405.....	3.75	34.79	400....	3.75	34.79	27.66
605.....	3.78	34.85	600....	3.75	34.85	27.71
804.....	3.59	34.845	800....	3.60	34.85	27.73
1,007...	3.46	34.855	1,000..	3.45	34.85	27.74
1,414...	3.36	34.865				

Station 6690; 29 April; 50°00.5′ N., 49°00′ W.; depth 1,884 m.; dynamic height 970.877.

0.......	2.52	34.30	0......	2.52	34.30	27.39
26......	2.34	34.32	25.....	2.35	34.32	27.42
52......	2.33	34.32	50.....	2.35	34.32	27.42
79	2.34	34.38	75.....	2.35	34.37	27.46
105.....	2.38	34.45	100....	2.40	34.43	27.50
157.....	3.36	34.72	150....	3.30	34.67	27.62
209.....	3.56	34.77	200....	3.55	34.76	27.66
314.....	3.73	34.81	300....	3.70	34.81	27.69
419.....	3.80	34.835	400....	3.80	34.83	27.69
625.....	3.59	34.84	600....	3.65	34.84	27.71
828.....	3.47	34.85	800....	3.50	34.85	27.74
1,036...	3.39	34.865	1,000..	3.40	34.86	27.76
1,559...	3.27	34.88				

Station 6691; 30 April; 49°51′ N., 48°20′ W.; depth 2,743 m.; dynamic height 970.886.

0.......	3.27	34.39	0......	3.27	34.39	27.39
25......	3.13	34.38	25.....	3.13	34.38	27.40
50......	3.05	34.38	50.....	3.05	34.38	27.40
75......	2.86	34.39	75.....	2.86	34.39	27.43
100.....	2.75	34.45	100....	2.75	34.45	27.49
150.....	3.23	34.67	150....	3.23	34.67	27.62
199.....	3.47	34.74	200....	3.50	34.74	27.65
299.....	3.72	34.79	300....	3.75	34.79	27.66
401.....	3.80	34.82	400....	3.80	34.82	27.69
598.....	3.71	34.85	600....	3.70	34.85	27.72
791.....	3.53	34.84	800....	3.55	34.84	27.72
991.....	3.41	34.85	1,000...	3.40	34.85	27.75
1,497...	3.29	34.885				

Station 6692; 30 April; 49°41′ N., 47°40.5′ W.; depth 2,705 m.; dynamic height 970.894.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.85	34.42	0	4.85	34.42	27.26
25	4.52	34.39	25	4.52	34.39	27.27
50	4.12	34.37	50	4.12	34.37	27.29
75	3.29	34.36	75	3.29	34.36	27.37
100	3.28	34.55	100	3.28	34.55	27.52
150	3.42	34.67	150	3.42	34.67	27.60
199	4.00	34.78	200	4.00	34.78	27.63
299	3.87	34.81	300	3.90	34.81	27.67
398	3.87	34.82	400	3.85	34.82	27.68
596	3.63	34.85	600	3.65	34.85	27.72
794	3.50	34.85	800	3.50	34.85	27.74
995	3.44	34.85	1,000	3.45	34.85	27.74
1,501	3.35	34.875				

Station 6693; 30 April; 49°15.5′ N., 47°54′ W.; depth 2,432 M.; dynamic height 970.890.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.29	34.26	0	3.29	34.26	27.29
25	3.28	34.33	25	3.28	34.33	27.34
49	3.14	34.32	50	3.15	34.32	27.35
74	3.05	34.34	75	3.05	34.34	27.37
98	2.99	34.44	100	3.00	34.45	27.47
147	3.33	34.66	150	3.35	34.67	27.61
196	3.58	34.74	200	3.50	34.75	27.66
294	3.74	34.80	300	3.75	34.80	27.67
385	3.75	34.80	400	3.75	34.80	27.67
575	3.67	34.84	600	3.65	34.84	27.71
763	3.48	34.85	800	3.45	34.85	27.74
959	3.42	34.86	1,000	3.40	34.86	27.76
1.456	3.32	34.875				

Station 6694; 30 April; 48°53.5′ N., 48°06′ W.; depth 2,377 m.; dynamic height 970.902.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.53	34.28	0	3.53	34.28	27.28
23	3.22	34.30	25	3.20	34.30	27.33
46	3.16	34.29	50	3.15	34.29	27.32
69	3.15	34.30	75	3.15	34.30	27.33
91	3.21	34.35	100	3.25	34.40	27.40
137	3.28	34.61	150	3.30	34.63	27.58
182	3.31	34.66	200	3.35	34.68	27.61
273	3.57	34.75	300	3.65	34.77	27.66
326	3.69	34.78	400	3.75	34.82	27.69
494	3.77	34.84	600	3.70	34.84	27.71
665	3.63	34.84	800	3.50	34.84	27.73
858	3.50	34.85	1,000	3.45	34.85	27.74
1,386	3.35	34.87				

Station 6695; 30 April; 48°30′ N., 48°23′ W.; depth 1,847 m.; dynamic height 970.908.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.22	33.85	0	2.22	33.85	27.05
24	1.77	33.80	25	1.80	33.80	27.04
48	2.09	34.07	50	2.10	34.09	27.25
73	2.06	34.31	75	2.05	34.33	27.45
97	2.49	34.49	100	2.50	34.50	27.55
145	2.93	34.62	150	3.00	34.63	27.61
193	3.44	34.70	200	3.50	34.70	27.62
290	3.67	34.76	300	3.70	34.77	27.66
399	3.80	34.81	400	3.80	34.81	27.68
597	3.73	34.84	600	3.75	34.84	27.70
794	3.55	34.84	800	3.55	34.84	27.72
994	3.45	34.85	1,000	3.45	34.85	27.74
1,500	3.33	34,875				

Station 6696; 30 April; 48°09.5′ N., 48°34′ W.; depth 1,847 m.; dynamic height 970.908.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.58	32.93	0	0.58	32.93	26.43
25	−0.01	32.95	25	−0.01	32.95	26.48
50	0.07	33.02	50	0.07	33.02	26.53
75	−0.18	33.39	75	−0.18	33.39	26.84
100	0.31	33.57	100	0.31	33.57	26.96
150	0.70	33.85	150	0.70	33.85	27.16
200	1.39	34.18	200	1.39	34.18	27.38
300	2.66	34.47	300	2.66	34.47	27.51
401	3.52	34.70	400	3.50	34.70	27.62
600	3.92	34.83	600	3.90	34.83	27.68

Station 6697; 30 April; 48°05′ N., 48°36′ W.; depth 326 m.; dynamic height 971.084.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.99	32.96	0	0.99	32.96	26.43
24	0.43	32.95	25	0.45	32.95	26.46
48	0.23	32.94	50	0.20	32.94	26.46
72	−0.17	33.01	75	−0.20	33.05	26.56
96	−0.10	33.41	100	−0.05	33.47	26.90
144	0.56	33.81	150	0.60	33.84	27.15
193	0.95	34.09	200	1.00	34.11	27.35
289	1.90	34.30	(300)	2.00	34.32	27.45

Station 6698; 30 April; 47°52′ N., 48°42′ W.; depth 224 m.; dynamic height 971.122.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.28	32.76	0	0.28	32.76	26.31
25	0.02	32.78	25	0.02	32.78	26.34
50	0.44	32.88	50	0.44	32.88	26.40
75	−0.73	33.01	75	−0.73	33.01	26.56
100	−0.40	33.20	100	−0.40	33.20	26.70
149	0.28	33.54	150	0.30	33.55	26.94
199	0.74	33.90	200	0.75	33.91	27.21

Station 6699; 1 May; 47°40.5′ N., 48°48′ W.; depth 169 m.; dynamic height 971.147.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.07	32.66	0	1.07	32.66	26.19
23	0.88	32.66	25	0.85	32.66	26.20
46	0.36	32.70	50	0.25	32.72	26.28
69	−0.45	32.85	75	−0.55	32.89	26.44
92	−0.68	33.02	100	−0.65	33.08	26.61
138	−0.21	33.36	(150)	−0.05	33.44	26.87

Station 6700; 1 May; 47°42′ N., 48°15′ N.; depth 223 m.; dynamic height 971.141.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.14	32.66	0	1.14	32.66	26.18
23	1.01	32.67	25	0.95	32.67	26.20
47	−0.02	32.72	50	−0.15	32.74	26.32
70	−0.65	32.96	75	−0.60	33.00	26.54
93	−0.49	33.12	100	−0.40	33.16	26.66
140	−0.06	33.42	150	0.00	33.46	26.89
186	0.23	33.59	(200)	0.30	33.62	27.00

STATIONS OCCUPIED IN 1958—Continued

Station 6701; 1 May; 47°43′ N., 47°55′ W.; depth 266 m.; dynamic height 971.133.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.74	32.88	0	0.74	32.88	26.38
24	0.52	32.92	25	0.50	32.92	26.42
48	0.50	32.93	50	0.50	32.93	26.43
71	0.05	32.96	75	−0.10	32.96	26.48
95	−0.74	32.98	100	−0.70	33.00	26.55
143	−0.03	33.37	150	0.10	33.43	26.86
190	0.58	33.70	200	0.65	33.75	27.08
238	0.79	33.93	[300]	1.40	34.26	27.45

Station 6702; 1 May; 47°44′ N., 47°34′ W.; depth 307 m.; dynamic height 971.105.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.54	32.79	0	0.54	32.79	26.32
26	0.40	32.85	25	0.40	32.85	26.38
51	−0.16	32.89	50	−0.15	32.88	26.43
77	−0.66	33.01	75	−0.65	32.99	26.54
102	−0.27	33.27	100	−0.30	33.25	26.72
154	0.38	33.69	150	0.35	33.67	27.04
205	0.62	33.93	200	0.60	33.90	27.20
289	1.96	34.29	(300)	2.15	34.32	27.44

Station 6703; 1 May; 47°53′ N., 47°22′ W.; depth 369 m.; dynamic height 971.078.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.56	32.86	0	0.56	32.86	26.37
25	0.37	32.95	25	0.37	32.95	26.46
49	0.32	32.98	50	0.35	32.98	26.48
74	0.53	33.06	75	0.55	33.06	26.53
99	−0.27	33.26	100	−0.25	33.27	26.74
148	0.56	33.83	150	0.60	33.84	27.15
197	1.25	34.14	200	1.25	34.15	27.37
296	2.57	34.47	300	2.60	34.48	27.52
350	2.97	34.56	[400]	3.20	34.62	27.59

Station 6704; 1 May; 48°08′ N., 47°03′ W.; depth 1,024 m.; dynamic height 970.991.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.99	33.06	0	0.99	33.06	26.51
23	0.69	33.09	25	0.65	33.09	26.55
45	0.15	33.26	50	0.15	33.35	26.78
68	0.21	33.66	75	0.35	33.73	27.08
91	0.60	33.88	100	0.75	33.93	27.22
136	1.29	34.12	150	1.55	34.19	27.37
181	2.10	34.34	200	2.35	34.41	27.49
272	3.16	34.61	300	3.35	34.65	27.59
354	3.63	34.71	400	3.70	34.74	27.63
638	3.80	34.81	600	3.80	34.83	27.69
725	3.73	34.85	800	3.65	34.85	27.72
886	3.56	34.845	(1,000)	3.50	34.84	27.73

Station 6705; 1 May; 48°31.5′ N., 46°50′ W.; depth 2,523 m.; dynamic height 970.919.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.57	33.43	0	1.57	33.43	26.77
22	1.18	33.78	25	1.15	33.80	27.09
45	0.98	34.07	50	1.00	34.08	27.32
67	1.35	34.13	75	1.50	34.16	27.36
90	1.80	34.27	100	2.00	34.33	27.45
135	2.63	34.48	150	2.80	34.51	27.53
179	2.95	34.56	200	3.10	34.59	27.57
269	3.66	34.74	300	3.65	34.75	27.64
318	3.56	34.75	400	3.80	34.81	27.68
482	3.82	34.83	600	3.80	34.85	27.71
649	3.77	34.85	800	3.55	34.85	27.73
830	3.51	34.85	1,000	3.45	34.85	27.74
1,313	3.37	34.86				

Station 6706; 1 May; 48°59.5′ N., 46°32′ W.; depth 2,862 m.; dynamic height 970.925.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.24	31.40	0	5.24	34.40	27.19
23	5.23	34.40	25	5.20	34.40	27.20
45	4.91	34.39	50	4.90	34.39	27.22
70	4.75	34.38	75	4.65	34.37	27.24
93	4.19	34.34	100	4.00	34.36	27.30
139	3.30	34.54	150	3.30	34.51	27.49
186	3.27	34.61	200	3.30	34.63	27.58
279	3.71	34.75	300	3.80	34.77	27.65
387	4.02	34.83	400	4.00	34.83	27.67
582	3.72	34.84	600	3.70	34.84	27.71
779	3.55	34.845	800	3.55	34.85	27.73
981	3.44	34.85	1,000	3.45	34.85	27.74
1,498	3.35	34.86				

Station 6707; 1 May; 49°19.5′ N., 46°20′ W.; depth 3,127 m.; dynamic height 970.916.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.63	34.42	0	5.63	34.42	27.16
27	5.62	34.43	25	5.60	34.43	27.17
53	5.55	34.44	50	5.55	34.44	27.18
80	5.04	34.42	75	5.15	34.42	27.22
106	4.23	34.44	100	4.35	34.43	27.31
160	4.32	34.74	150	4.30	34.71	27.55
231	4.34	34.81	200	4.35	34.79	27.60
320	4.03	34.83	300	4.10	34.83	27.66
431	3.87	34.84	400	3.90	34.84	27.69
643	3.66	34.865	600	3.70	34.86	27.73
854	3.49	34.85	800	3.55	34.85	27.73
1,068	3.41	34.855	1,000	3.45	34.85	27.74
1,604	3.36	34.875				

Station 6708; 2 May; 49°10′ N., 45°41′ W.; depth 2,926 m.; dynamic height 970.902.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.15	34.29	0	4.15	34.29	27.22
24	4.15	34.30	25	4.15	34.30	27.23
49	3.82	34.30	50	3.80	34.30	27.27
73	3.40	34.29	75	3.40	34.29	27.30
98	3.32	34.48	100	3.35	34.49	27.46
145	3.53	34.65	150	3.55	34.66	27.58
194	3.51	34.69	200	3.50	34.69	27.61
292	3.69	34.76	300	3.70	34.76	27.65
378	3.81	34.805	400	3.80	34.81	27.68
569	3.76	34.845	600	3.75	34.85	27.71
761	3.54	34.86	800	3.50	34.86	27.75
958	3.43	....	1,000	3.45	34.86	27.75
1,464	3.35	34.865				

STATIONS OCCUPIED IN 1958—Continued

Station 6709; 2 May; 49°00′ N., 44°59′ W.; depth 1,737 m.; dynamic height 970.913.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.25	34.05	0	3.25	34.05	27.12
24	2.94	34.08	25	2.90	34.08	27.18
47	2.25	34.09	50	2.25	34.11	27.26
71	2.20	34.32	75	2.20	34.34	27.45
95	2.27	34.40	100	2.30	34.41	27.50
142	2.77	34.53	150	2.85	34.54	27.55
189	3.10	34.61	200	3.15	34.63	27.59
284	3.79	34.74	300	3.85	34.76	27.63
414	3.91	34.82	400	3.90	34.81	27.67
617	3.70	34.83	600	3.75	34.83	27.69
816	3.48	34.84	800	3.50	34.84	27.73
1,022	3.38	34.86	1,000	3.40	34.86	27.76
1,537	3.32	34.87				

Station 6710; 2 May; 48°37.5′ N., 45°28′ W.; depth 1,188 m.; dynamic height 970.933.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.34	33.74	0	2.34	33.74	26.95
24	3.33	33.95	25	3.30	33.96	27.05
48	2.76	34.08	50	2.75	34.09	27.20
73	2.91	34.30	75	2.90	34.31	27.37
97	2.87	34.35	100	2.90	34.36	27.41
145	3.24	34.53	150	3.30	34.54	27.51
193	3.49	34.62	200	3.55	34.63	27.55
290	3.99	34.78	300	4.00	34.78	27.63
375	3.81	34.77	400	3.80	34.78	27.65
564	3.84	34.84	600	3.80	34.84	27.70
754	3.58	34.85	800	3.55	34.85	27.73
957	3.46	34.84	(1,000)	3.45	34.84	27.73

Station 6711; 2 May; 48°18′ N., 45°55′ W.; depth 1,188 m.; dynamic height 970.940.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.32	33.58	0	2.32	33.58	26.83
26	2.30	33.68	25	2.30	33.67	26.91
51	2.51	34.12	50	2.50	34.11	27.24
77	1.29	34.12	75	1.35	34.12	27.34
102	1.67	34.24	100	1.60	34.23	27.40
153	2.55	34.48	150	2.50	34.46	27.52
204	2.89	34.58	200	2.90	34.57	27.58
306	3.61	34.73	300	3.60	34.72	27.63
396	3.95	34.785	400	3.95	34.79	27.64
597	3.78	34.85	600	3.80	34.85	27.71
801	3.71	34.84	800	3.70	34.84	27.71
1,015	3.53	34.84	1,000	3.55	34.84	27.72

Station 6712; 2 May; 47°58.5′ N., 46°24′ W.; depth 1,216 m.; dynamic height 970.956.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.47	33.22	0	1.47	33.22	26.61
26	1.67	33.70	25	1.65	33.68	26.96
51	2.00	34.04	50	2.00	34.02	27.21
77	1.16	34.10	75	1.20	34.10	27.33
102	1.56	34.24	100	1.50	34.22	27.41
154	2 45	34.44	150	2.40	34.42	27.50
206	2.98	34.56	200	2.95	34.54	27.54
308	3.45	34.67	300	3.45	34.66	27.59
358	3.47	34.70	400	3.55	34.73	27.63
559	3.95	34.83	600	3.95	34.84	27.68
775	3.73	34.84	800	3.70	34.84	27.71
1,006	3.46	34.83	1,000	3.50	34.83	27.72

Station 6713; 2 May; 47°52′ N., 46°08′ W.; depth 1,051 m.; dynamic height 970.932.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.90	33.77	0	2.90	33.77	26.94
27	2.73	33.78	25	2.75	33.78	26.95
53	1.78	33.91	50	1.80	33.88	27.10
80	2.00	34.15	75	1.90	34.10	27.28
106	2.83	34.37	100	2.70	34.32	27.39
160	3.54	34.64	150	3.40	34.60	27.55
212	4.04	34.76	200	3.95	34.74	27.60
318	4.02	34.81	300	4.00	34.81	27.65
400	3.84	34.81	400	3.80	34.81	27.68
600	3.60	34.83	600	3.60	34.83	27.71
802	3.51	34.84	800	3.55	34.84	27.72
1,005	3.41	34.85	1,000	3.45	34.85	27.74

Station 6714; 2 May; 47°44.5′ N., 45°50′ W.; depth 414 m.; dynamic height 970.948.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4 24	33.73	0	4.24	33.73	26.77
25	4.21	33.73	25	4.21	33.73	26.78
51	5.36	34.04	50	5.35	34.04	26.89
76	2.87	33.90	75	2.95	33.90	27.03
102	2.34	34.18	100	2.35	34.15	27.28
152	4.05	34.66	150	4.00	34.64	27.52
203	4 05	34.76	200	4.00	34.75	27.61
305	3.93	34.82	300	3.95	34.82	27.67
406	3.81	34.82	400	38.5	34.82	27.68

Station 6715; 3 May; 47°40.5′ N., 45°41′ W.; depth 317 m.; dynamic height 970.955.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.60	34 00	0	5.60	34.00	26.83
24	5 59	34.00	25	5.60	34.00	26.83
48	5.47	34.01	50	5.45	34.01	26.86
73	5.20	34 06	75	5.15	34.06	26.94
97	4.56	34 19	100	4.50	34.21	27.13
145	3.76	34.52	150	3.75	34.55	27.47
193	3.85	....	200	3.85	34.79	27.65
290	3 78	34.29	300	3.80	34.79	27.66

Station 6716; 3 May; 47°25′ N., 45°03′ W.; depth 216 m.; dynamic height 970.965.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.81	34.04	0	5.81	34.04	26.84
25	5.72	34.04	25	5.72	34.04	26.85
50	5.44	34.04	50	5.44	34.04	26.88
76	5.30	34.07	75	5.30	34.07	26.93
101	4.26	34.20	100	4.30	34.19	27.13
151	4.02	34.51	150	4.05	34.50	27.40
201	3.80	34.63	200	3.80	34.63	27.53

Station 6717; 3 May; 47°23′ N., 44°58′ W.; depth 190 m.; dynamic height 970.956.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.93	34.06	0	5.93	34.06	26.84
25	5.93	34.07	25	5.93	34.07	26.85
51	5.51	34.06	50	5.55	34.06	26.89
76	4.85	34.13	75	4.85	34.12	27.02
101	3.81	34.28	100	3.80	34.27	27.25
152	3.93	34.55	150	3.95	34.54	27.44
			[200]	3.85	34.72	27.60

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6718; 3 May; 47°23′ N., 45°06′ W.; depth 220 m.; dynamic height 970.953.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.91	34.05	0	5.91	34.05	26.83
25	5.66	34.06	25	5.66	34.06	26.88
50	5.46	34.09	50	5.46	34.09	26.92
76	4.24	34.15	75	4.25	34.15	27.10
101	3.69	34.24	100	3.70	34.24	27.23
152	3.90	34.53	150	3.90	34.52	27.44
202	3.78	34.64	200	3.80	34.63	27.53

Station 6719; 3 May; 47°23.5′ N., 45°34′ W.; depth 274 m.; dynamic height 970.956.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.60	33.98	0	5.60	33.98	26.82
25	5.60	33.99	25	5.60	33.99	26.82
51	5.59	34.05	50	5.60	34.05	26.87
76	4.97	34.04	75	4.95	34.04	26.94
101	4.20	34.26	100	4.20	34.24	27.18
152	4.09	34.64	150	4.05	34.63	27.50
202	4.26	34.78	200	4.25	34.78	27.60
253	4.12	34.78	[300]	3.95	34.78	27.63

Station 6720; 3 May; 47°23.5′ N., 45°56′ W.; depth 320 m.; dynamic height 970.953.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.72	34.00	0	5.72	34.00	26.82
25	5.70	34.01	25	5.70	34.01	26.83
50	5.59	34.05	50	5.59	34.05	26.87
75	5.29	34.06	75	5.29	34.06	26.92
100	4.20	34.27	100	4.20	34.27	27.21
150	3.90	34.60	150	3.90	34.60	27.50
200	3.92	34.72	200	3.92	34.72	27.59
300	3.82	34.80	300	3.82	34.80	27.67

Station 6721; 3 May; 47°22.5′ N., 46°25′ W.; depth 626 m.; dynamic height 970.948.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.97	33.60	0	3.97	33.60	26.70
24	3.83	33.60	25	3.85	33.60	26.71
48	3.59	33.90	50	3.60	33.94	27.00
72	4.10	34.26	75	4.10	34.27	27.22
96	3.40	34.36	100	3.40	34.37	27.37
144	3.70	34.55	150	3.80	34.57	27.49
193	4.40	34.76	200	4.40	34.77	27.58
289	4.33	34.84	300	4.30	34.84	27.65
364	4.10	34.84	400	4.05	34.84	27.67
557	3.91	34.86	(600)	3.90	34.86	27.71

Station 6722; 3 May; 47°22′ N., 46°37′ W.; depth 1,170 m.; dynamic height 970.943.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.01	33.48	0	3.01	33.48	26.69
26	2.63	33.48	25	2.65	33.48	26.72
52	2.14	33.82	50	2.15	33.79	27.01
78	2.45	34.14	75	2.40	34.11	27.25
103	2.60	34.28	100	2.60	34.26	27.35
156	3.38	34.57	150	3.20	34.53	27.51
208	4.07	34.75	200	4.00	34.73	27.59
311	4.05	34.81	300	4.05	34.81	27.65
387	4.08	34.83	400	4.05	34.83	27.66
590	3.66	34.845	600	3.65	34.85	27.72
800	3.53	34.85	800	3.55	34.85	27.73
1,017	3.42	34.85	1,000	3.45	34.85	27.74

Station 6723; 2 May; 47°21′ N., 47°09′ W.; depth 914 m.; dynamic height 971.015.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.63	33.04	0	1.63	33.04	26.45
26	0.93	33.13	25	1.00	33.22	26.64
52	−0.21	33.34	50	−0.20	33.32	26.78
78	0.54	33.67	75	0.50	33.63	26.99
104	0.60	33.86	100	0.60	33.84	27.15
155	1.20	34.10	150	1.15	34.08	27.31
206	1.93	34.30	200	1.80	34.28	27.43
310	3.15	34.60	300	3.05	34.57	27.56
416	3.90	34.76	400	3.85	34.74	27.61
622	3.94	34.84	600	3.95	34.83	27.67
826	3.70	34.85	800	3.75	34.85	27.71

Station 6724; 3 May; 47°20.5′ N., 47°21′ W.; depth 329 m.; dynamic height 971.054.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.34	32.92	0	1.34	32.92	26.37
25	1.37	32.92	25	1.37	32.92	26.37
49	0.68	33.04	50	0.65	33.04	26.51
74	0.13	33.23	75	0.10	33.24	26.71
99	−0.13	33.54	100	−0.20	33.55	26.97
148	0.65	33.87	150	0.70	33.88	27.18
197	1.27	34.12	200	1.30	34.13	27.34
296	2.33	34.39	300	2.35	34.39	27.47

Station 6725; 3 May; 47°20′ N., 47°44′ W.; depth 224 m.; dynamic height 971.116.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.22	32.64	0	1.22	32.64	26.16
23	1.12	32.68	25	1.10	32.68	26.20
47	0.57	32.72	50	0.40	32.73	26.28
70	−0.67	32.88	75	−0.65	32.91	26.47
94	−0.49	33.06	100	−0.45	33.10	26.61
141	−0.17	33.38	150	−0.10	33.44	26.87
188	0.31	33.64	(200)	0.40	33.69	27.05

Station 6726; 3 May; 47°18.5′ N., 48°09′ W.; depth 168 m.; dynamic height 971.111.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.90	32.64	0	1.90	32.64	26.12
26	1.66	32.68	25	1.70	32.68	26.16
52	−0.03	32.80	50	0.10	32.79	26.35
78	−0.65	33.03	75	−0.60	33.01	26.55
105	−0.26	33.24	100	−0.30	33.21	26.70
156	−0.24	33.41	150	−0.25	33.39	26.84

Station 6727; 4 May; 47°17′ N., 48°39′ W.; depth 128 m.; dynamic height 971.111.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.35	32.60	0	1.35	32.60	26.13
25	0.95	32.68	25	0.95	32.68	26.21
50	0.00	32.76	50	0.00	32.76	26.32
76	−0.65	32.96	75	−0.65	32.95	26.50
101	−0.38	33.20	100	−0.35	33.20	26.69
116	−0.31	33.26				

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6728; 4 May; 47°15′ N., 49°04′ W.; depth 95 m.; dynamic height 971.113.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.55	32.62	0	1.55	32.62	26.12
22	1.18	32.65	25	1.10	32.65	26.18
48	0.80	32.70	50	0.75	32.70	26.23
72	−0.47	33.04	75	−0.55	33.06	26.58

Station 6729; 4 May; 46°53.5′ N., 48°37′ W.; depth 101 m.; dynamic height 971.118.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.04	32.65	0	2.04	32.65	26.12
26	2.05	32.70	25	2.05	32.70	26.15
51	1.20	32.70	50	1.25	32.70	26.20
77	−0.44	32.93	75	−0.40	32.91	26.46
92	−0.37	33.08	(100)	−0.30	33.14	26.64

Station 6730; 4 May; 46°52.5′ N., 48°09′ W.; depth 117 m.; dynamic height 971.116.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.09	32.58	0	2.09	32.58	26.05
25	1.90	32.64	25	1.90	32.64	26.12
50	1.50	32.68	50	1.50	32.68	26.17
76	−0.21	33.08	75	−0.20	33.05	26.56
101	−0.33	33.29	100	−0.35	33.28	26.75

Station 6731; 4 May; 46°51.5′ N., 47°44′ W.; depth 169 m.; dynamic height 971.116.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.41	32.66	0	1.41	32.66	26.16
25	1.21	32.66	25	1.21	32.66	26.18
50	0.29	32.74	50	0.29	32.74	26.29
75	−0.65	32.94	75	−0.65	32.94	26.50
100	−0.58	33.08	100	−0.58	33.08	26.60
150	−0.17	33.38	150	−0.17	33.38	26.83

Station 6732; 4 May; 46°50.5′ N., 47°19′ W.; depth 320 m.; dynamic height 971.054.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.32	32.76	0	1.32	32.76	26.25
25	1.04	32.76	25	1.04	32.76	26.27
51	0.70	33.12	50	0.70	33.11	26.56
76	−0.28	33.32	75	−0.30	33.31	26.77
101	0.29	33.62	100	0.25	33.60	26.99
152	0.74	33.93	150	0.70	33.91	27.21
203	1.49	34.21	200	1.40	34.19	27.39
304	3.06	34.59	300	3.00	34.57	27.57

Station 6733; 4 May; 46°50′ N., 47°11′ W.; depth 629 m.; dynamic height 971.030.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	1.40	32.96	0	1.40	32.96	26.40
25	0.26	33.04	25	0.26	33.04	26.54
51	0.32	33.26	50	0.35	33.24	26.69
77	0.31	33.57	75	0.30	33.55	26.94
103	0.42	33.77	100	0.40	33.75	27.10
153	0.50	33.94	150	0.50	33.93	27.23
205	1.78	34.27	200	1.65	34.25	27.42
308	3.31	34.64	300	3.20	34.60	27.57
409	3.95	34.75	400	3.95	34.74	27.60
608	3.96	34.84	600	3.95	34.84	27.68

Station 6734; 4 May; 46°49.5′ N., 46°54′ W.; depth 1,225 m.; dynamic height 970.961.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	2.38	33.35	0	2.38	33.35	26.64
25	2.26	33.46	25	2.26	33.46	26.75
50	1.99	33.75	50	1.99	33.75	26.99
75	2.62	34.06	75	2.62	34.06	27.19
100	2.59	34.25	100	2.59	34.25	27.34
150	2.44	34.39	150	2.44	34.39	27.46
199	3.68	34.64	200	3.70	34.64	27.55
299	4.06	34.78	300	4.05	34.78	27.62
414	3.99	34.81	400	4.00	34.80	27.65
617	3.72	34.84	600	3.75	34.84	27.70
817	3.52	34.84	800	3.55	34.84	27.72
1,031	3.41	34.845	1,000	3.45	34.84	27.73

Station 6735; 4 May; 46°48.5′ N., 46°29′ W.; depth 614 m.; dynamic height 970.960.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.36	34.00	0	6.36	34.00	26.74
25	6.36	34.00	25	6.36	34.00	26.74
50	6.09	34.06	50	6.09	34.06	26.82
75	4.90	34.28	75	4.90	34.28	27.13
100	5.82	34.64	100	5.82	34.64	27.31
150	5.56	34.77	150	5.56	34.77	27.44
201	4.52	34.73	200	4.50	34.73	27.53
301	3.87	34.77	300	3.85	34.77	27.64
403	3.86	34.80	400	3.80	34.80	27.67
597	3.56	34.83	600	3.55	34.83	27.71

Station 6736; 4–5 May; 46°47.5′ N., 45°58′ W.; depth 320 m.; dynamic height 970.959.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.75	33.93	0	5.75	33.93	26.76
22	5.77	33.95	25	5.80	33.95	26.77
46	5.87	34.08	50	5.80	34.09	26.88
68	5.23	34.11	75	4.95	34.12	27.01
91	4.46	34.17	100	4.45	34.23	27.14
136	4.32	34.60	150	4.25	34.63	27.48
182	4.09	34.69	200	4.10	34.72	27.58
273	4.30	34.83	(300)	4.30	34.85	27.66

Station 6737; 5 May; 46°47′ N., 45°38′ W.; depth 258 m.; dynamic height 970.977.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.62	33.89	0	5.62	33.89	26.75
24	5.59	33.89	25	5.60	33.89	26.75
47	4.98	33.92	50	4.90	33.92	26.86
71	4.64	33.96	75	4.50	33.97	26.94
94	3.70	34.03	100	3.70	34.04	27.07
142	4.31	34.17	150	4.25	34.25	27.18
189	3.85	34.70	200	3.85	34.71	27.59
236	3.86	34.73	[300]	3.85	34.79	27.65

Station 6738; 5 May; 46°47′ N., 45°18′ W.; depth 223 m.; dynamic height 970.961.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.33	33.89	0	5.33	33.89	26.78
25	5.34	33.89	25	5.34	33.89	26.78
50	4.43	33.90	50	4.43	33.90	26.88
76	4.00	33.91	75	3.85	33.92	26.96
101	3.14	34.06	100	3.15	34.06	27.14
151	3.63	34.50	150	3.65	34.49	27.44
202	3.79	34.68	200	3.75	34.67	27.57

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6739; 5 May; 46°46.5′ N., 45°01′ W.; depth 172 m.; dynamic height 970.963.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	5.59	33.88	0	5.59	33.88	26.74
24	5.58	33.87	25	5.55	33.87	26.74
48	4.92	33.88	50	4.90	33.88	26.82
72	4.80	33.98	75	4.75	33.99	26.92
96	4.23	34.12	100	4.15	34.15	27.12
144	3.69	34.55	(150)	3.70	34.60	27.52

Station 6740; 5 May; 46°47.5′ N., 44°50′ W.; depth 143 m.; dynamic height 970.953.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	5.36	33.90	0	5.36	33.90	26.79
24	4.95	33.89	25	4.90	33.89	26.83
49	4.16	33.91	50	4.15	33.91	26.92
73	4.14	34.17	75	4.10	34.18	27.14
97	3.91	34.27	100	3.90	34.28	27.24
131	3.90	34.32	[150]	3.90	34.34	27.29

Station 6741; 23 May; 37°30′ N., 50°16′ W.; depth 5,395 m.; dynamic height 971.819.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	18.63	36.385	0	18.63	36.385	26.19
24	18.15	36.38	25	18.15	36.38	26.31
49	18.12	36.38	50	18.10	36.38	26.32
73	18.08	36.395	75	18.05	36.395	26.35
97	17.80	36.40	100	17.80	36.40	26.41
146	17.61	36.40	150	17.60	36.40	26.46
194	17.56	36.40	200	17.55	36.40	26.47
291	17.25	36.345	300	17.20	36.33	26.50
387	16.65	36.22	400	16.50	36.19	26.56
580	14.09	35.745	600	13.80	35.70	26.79
771	11.04	35.355	800	10.50	35.30	27.12
962	7.24	35.055	1,000	6.65	35.03	27.51
1,159	5.30	34.99	1,500	4.30	34.97	27.75
1,357	4.60	34.99	2,000	3.75	34.93	27.77
1,557	4.20	....	2,500	3.50	34.94	27.81
1,984	3.77	34.93	3,000	3.15	34.92	27.83
2,491	3.50	34.94				
3,001	3.13	34.92				

Station 6742; 23 May; 38°01′ N., 50°18′ W.; depth 5,395 m.; dynamic height 971.851.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	18.88	36.395	0	18.88	36.395	26.14
24	18.13	36.40	25	18.15	36.40	26.32
49	17.90	36.40	50	17.90	36.40	26.39
73	17.88	36.40	75	17.80	36.40	26.40
98	17.89	36.40	100	17.85	36.40	26.40
146	17.69	36.425	150	17.65	36.42	26.46
191	17.58	36.40	200	17.55	36.40	26.47
292	17.49	36.40	300	17.50	36.40	26.48
347	17.48	36.40	400	17.10	36.33	26.52
529	15.83	36.10	600	15.00	35.96	26.73
716	13.34	35.685	800	11.25	35.44	27.09
910	8.57	35.14	1,000	6.75	35.00	27.47
1,103	5.56	34.97	1,500	4.35	34.98	27.75
1,300	4.92	34.99	2,000	3.80	34.93	27.77
1,500	4.36	......	2,500	3.50	34.93	27.80
2,094	3.74	34.93	3,000	3.15	34.92	27.83
2,595	3.43	34.93				
3,096	3.04	34.915				

Station 6743; 23 May; 38°32.5′ N., 50°18′ W.; depth 5,395 m.; dynamic height 971.881.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	18.76	36.35	0	18.76	36.35	26.13
26	18.04	36.415	25	18.05	36.41	26.36
52	18.00	36.43	50	18.00	36.43	26.38
78	17.92	36.43	75	17.90	36.43	26.41
103	17.80	36.43	100	17.80	36.43	26.43
154	17.66	36.42	150	17.70	36.42	26.45
206	17.61	36.405	200	17.60	36.40	26.46
309	17.57	36.41	300	17.60	36.41	26.47
382	17.53	36.40	400	17.45	36.39	26.49
576	15.72	36.04	600	15.30	35.98	26.67
770	12.12	35.505	800	11.55	35.42	27.02
967	7.40	35.04	1,000	6.70	35.00	27.48
1,166	5.15	34.96	1,500	4.30	34.95	27.73
1,369	4.50	34.95	2,000	3.80	34.92	27.77
1,574	4.16	....	2,500	3.50	34.93	27.80
2,012	3.79	34.92	3,000	3.15	34.92	27.83
2,508	3.48	34.93				
3,007	3.13	34.92				

Station 6744; 23–24 May; 39°01.5′ N., 50°11′ W.; depth 5,350 m.; dynamic height 971.756.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	20.21	36.31	0	20.21	36.31	25.73
25	20.08	36.32	25	20.08	36.32	25.76
51	18.74	36.265	50	18.80	36.27	26.06
77	18.13	36.29	75	18.20	36.29	26.22
103	17.69	36.31	100	17.70	36.31	26.37
153	17.73	36.435	150	17.70	36.43	26.45
205	17.47	36.38	200	17.50	36.38	26.47
308	16.84	36.27	300	16.90	36.28	26.54
405	15.94	36.08	400	16.00	36.09	26.60
604	12.72	35.59	600	12.80	35.59	26.91
801	8.17	35.06	800	8.20	35.06	27.31
995	5.59	35.01	1,000	5.55	35.01	27.64
1,194	4.50	34.94	1,500	4.10	34.95	27.76
1,392	4.24	34.95	2,000	3.65	34.93	27.78
1,591	3.96	....	2,500	3.35	34.92	27.81
1,927	3.71	34.93	(3,000)	3.10	34.91	27.83
2,409	3.40	34.92				
2,899	3.12	34.91				

Station 6745; 24 May 39°39.5′ N., 49°50′ W.; depth 5,395 m.; dynamic height 971.384.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	18.53	36.24	0	18.53	36.24	26.11
25	16.26	36.08	25	16.26	36.08	26.53
49	16.11	36.08	50	16.10	36.08	26.57
74	15.86	36.08	75	15.85	36.08	26.63
98	15.72	36.06	100	15.70	36.05	26.64
147	14.79	35.85	150	14.75	35.84	26.69
197	14.27	35.76	200	14.25	35.76	26.74
295	13.32	35.65	300	13.25	35.64	26.85
375	11.71	35.43	400	11.10	35.36	27.06
561	7.80	35.025	600	7.30	35.02	27.41
745	5.78	34.99	800	5.35	34.98	27.63
928	4.73	34.95	1,000	4.65	34.96	27.71
1,175	4.48	34.97	1,500	3.95	34.94	27.76
1,326	4.03	34.94	2,000	3.65	34.93	27.78
1,530	3.91	....	2,500	3.30	34.925	27.82
2,085	3.60	34.93	3,000	3.00	34.91	27.84
2,583	3.27	34.925				
3,081	2.95	34.91				

STATIONS OCCUPIED IN 1958—Continued

Station 6746; 24 May; 40°00′ N., 50°06′ W.; depth 5,376 m.; dynamic height 971.331.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	18.29	36.16	0	18.29	36.16	26.11
24	16.42	36.05	25	16.40	36.05	26.48
49	15.81	36.05	50	15.80	36.05	26.62
73	15.57	36.05	75	15.55	36.05	26.67
97	15.56	35.99	100	15.30	35.99	26.68
145	14.74	35.87	150	14.65	35.85	26.72
194	13.90	35.70	200	13.80	35.69	26.78
291	12.68	35.56	300	12.45	35.53	26.93
375	10.74	35.32	400	10.15	35.26	27.15
566	7.12	35.02	600	6.65	35.01	27.50
758	5.31	34.98	800	5.15	34.98	27.66
953	4.91	35.01	1,000	4.85	35.00	27.71
1,153	4.40	34.98	1,500	3.90	34.94	27.77
1,356	4.03	34.95	2,000	3.60	34.92	27.79
1,561	3.86	....	2,500	3.25	34.92	27.82
1,907	3.66	34.92	(3,000)	2.90	34.90	27.84
2,387	3.35	34.92				
2,876	3.00	34.90				

Station 6747; 24 May; 40°30.5′ N., 50°18′ W.; depth 3,640 m.; dynamic height 971.460.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	18.25	36.34	0	18.25	36.34	26.25
25	17.56	36.35	25	17.56	36.35	26.43
50	17.49	36.35	50	17.49	36.35	26.45
76	17.47	36.36	75	17.45	36.36	26.46
101	17.44	36.36	100	17.45	36.36	26.46
151	17.09	36.34	150	17.10	36.34	26.53
201	15.87	36.10	200	15.90	36.10	26.63
302	14.59	35.86	300	14.65	35.87	26.74
403	12.51	35.56	400	12.55	35.57	26.94
604	7.91	35.02	600	8.00	35.02	27.31
803	5.42	35.01	800	5.45	35.01	27.65
1,003	4.69	35.00	1,000	4.70	35.00	27.73
1,208	4.12	34.94	1,500	3.80	34.92	27.77
1,416	3.87	34.92	2,000	3.50	34.91	27.79
1,624	3.71	34.92	2,500	3.15	34.90	27.81
1,948	3.56	34.92	(3,000)	2.75	34.895	27.85
2,444	3.18	34.905				
2,946	2.81	34.895				

Station 6748; 24–25 May; 40°54′ N., 50°14′ W.; depth 4,262 m.; dynamic height 971.344.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	17.43	36.11	0	17.43	36.11	26.28
25	16.33	36.14	25	16.33	36.14	26.56
51	16.29	36.14	50	16.30	36.14	26.57
76	15.92	36.10	75	15.90	36.10	26.63
102	15.66	36.05	100	15.70	36.05	26.64
152	14.75	35.86	150	14.80	35.87	26.70
202	14.04	35.72	200	14.10	35.73	26.74
304	12.67	35.57	300	12.75	35.58	26.91
420	9.72	35.20	400	10.40	35.25	27.10
627	5.96	34.92	600	6.25	34.93	27.48
831	5.27	35.03	800	5.35	35.02	27.67
1,034	4.65	35.00	1,000	4.75	35.01	27.73
1,242	4.10	34.94	1,500	3.85	34.93	27.76
1,449	3.90	34.93	2,000	3.55	34.92	27.79
1,658	3.73	34.93	2,500	3.25	34.915	27.81
2,001	3.56	34.92	(3,000)	2.85	34.91	27.85
2,502	3.23	34.915				
3,004	2.86	....				

Station 6749; 25 May; 41°27′ N., 50°19′ W.; depth 4,023 m.; dynamic height 971.198.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	10.69	33.42	0	10.69	33.42	25.62
24	9.76	34.24	25	9.75	34.28	26.45
49	13.32	35.34	50	13.30	35.34	26.61
73	11.74	35.15	75	11.70	35.14	26.77
97	11.29	35.07	100	11.25	35.06	26.80
146	10.65	34.97	150	10.60	34.97	26.84
195	9.94	35.04	200	9.85	35.03	27.02
292	6.60	34.59	300	6.25	34.55	27.18
398	1.74	34.16	400	1.75	34.16	27.34
596	3.66	34.72	600	3.70	34.73	27.62
795	4.18	34.88	800	4.15	34.88	27.69
994	3.71	34.86	1,000	3.90	34.88	27.72
1,027	4.04	34.90	1,500	3.75	34.915	27.76
1,228	4.05	34.94	2,000	3.50	34.91	27.79
1,430	3.81	34.92	2,500	3.20	34.905	27.81
1,631	3.61	34.905	3,000	2.80	34.90	27.84
1,994	3.52	34.91				
2,495	3.19	34.905				
3,000	2.78	34.90				

Station 6750; 25 May; 41°53.5′ N., 50°19′ W.; depth 3,329 m.; dynamic height 971.062.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	8.73	32.83	0	8.73	32.83	25.48
25	6.25	33.30	25	6.25	33.30	26.20
50	5.35	33.52	50	5.35	33.52	26.49
75	4.66	33.66	75	4.66	33.66	26.68
99	2.45	33.76	100	2.45	33.76	26.96
149	1.67	34.06	150	1.65	34.07	27.28
199	2.95	34.30	200	2.95	34.30	27.35
298	3.06	34.53	300	3.05	34.53	27.52
402	3.62	34.72	400	3.60	34.71	27.62
602	4.61	34.95	600	4.60	34.95	27.70
802	4.26	34.945	800	4.25	34.945	27.74
1,002	4.06	34.93	1,000	4.05	34.945	27.74
1,204	3.82	34.915	1,500	3.65	34.915	27.77
1,404	3.66	34.915	2,000	3.40	34.91	27.80
1,607	3.57	....	2,500	3.10	34.92	27.84
2,158	3.32	34.91	(3,000)	2.65	34.89	27.85
2,465	3.13	34.92				
2,985	2.69	34.89				

Station 6751; 25 May; 42°54′ N., 50°14′ W.; depth 1,554 m.; dynamic height 971.040.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	8.49	33.52	0	8.49	33.52	26.06
25	7.60	33.82	25	7.60	33.82	26.42
49	7.87	34.16	50	7.85	34.16	26.66
74	6.42	34.17	75	6.30	34.17	26.88
98	5.02	34.13	100	4.95	34.13	27.01
147	2.44	34.16	150	2.45	34.17	27.29
196	3.94	34.46	200	3.95	34.48	27.40
294	3.61	34.67	300	3.60	34.67	27.59
375	3.81	34.74	400	3.85	34.76	27.63
560	3.96	34.84	600	3.95	34.84	27.68
745	3.81	34.84	800	3.80	34.84	27.70
935	3.78	34.84	1,000	3.80	34.84	27.70
1,418	3.58	34.86	(1,500)	3.55	34.86	27.74

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6752; 25 May; 42°44.5′ N., 50°15′ W.; depth 590 m.; dynamic height 971.075.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	9.0	33.50	0......	9.0	33.50	25.97
25......	6.49	33.92	25......	6.49	33.92	26.66
50......	1.54	33.50	50......	1.54	33.50	26.83
75......	1.50	33.52	75......	1.50	33.52	26.85
100.....	4.71	33.99	100....	4.71	33.99	26.93
150.....	1.15	33.90	150....	1.15	33.90	27.17
199.....	2.09	34.10	200....	2.10	34.10	27.26
299.....	2.75	34.46	300....	2.75	34.46	27.50
396.....	3.37	34.60	400....	3.40	34.60	27.55
586.....	3.87	34.80	600....	3.90	34.80	27.66

Station 6753; 25 May; 42°48′ N., 50°15′ W.; depth 238 m.; dynamic height 971.105.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	7.96	33.25	0......	7.96	33.25	25.93
25......	3.28	33.19	25.....	3.28	33.19	26.44
49......	1.70	33.44	50.....	1.70	33.44	26.77
74......	2.70	33.58	75.....	2.70	33.58	26.80
98......	2.06	33.60	100....	2.00	33.60	26.88
147.....	1.09	33.73	150....	1.10	33.74	27.04
196.....	1.31	33.85	200....	1.50	33.94	27.18
221.....	2.66	34.42				

Station 6754; 25 May; 42°46.5′ N., 50°17′ W.; depth 90 m.; dynamic height 971.137.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	6.61	32.74	0......	6.61	32.74	25.72
26......	2.63	32.86	25.....	2.90	32.86	26.21
52......	0.97	33.05	50.....	1.05	33.04	26.50
78......	0.51	33.18	75.....	0.55	33.17	26.62

Station 6755; 26 May; 43°17.5′ N., 50°16′ W.; depth 66 m.; dynamic height 971.147.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	9.16	32.89	0......	9.16	32.89	25.46
26......	4.58	32.86	25.....	4.90	32.86	26.01
52......	1.25	33.02	50.....	1.45	33.00	26.44

Station 6756; 26 May; 43°02′ N., 50°36′ W.; depth 91 m.; dynamic height 971.134.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	6.93	32.79	0......	6.93	32.79	25.72
25......	3.29	32.88	25.....	3.29	32.88	26.19
51......	1.01	33.03	50.....	1.10	33.02	26.47
76......	0.30	33.33	75.....	0.30	33.31	26.75

Station 6757; 25 May; 42°56′ N., 50°45′ W.; depth 168 m.; dynamic height 971.127.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	9.52	32.80	0......	9.52	32.80	25.34
25......	6.82	33.44	25.....	6.82	33.44	26.24
50......	6.55	33.86	50.....	6.55	33.86	26.60
75......	4.83	34.00	75.....	4.83	34.00	26.92
99......	7.24	34.39	100....	7.20	34.39	26.93
149.....	4.54	34.24	150....	4.50	34.24	27.15

Station 6758; 26 May; 42°49.5′ N., 50°63′ W.; depth 622 m.; dynamic height 971.104.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	10.50	33.07	0.....	10.50	33.07	25.38
25......	6.95	33.53	25.....	6.95	33.53	26.29
50......	3.24	33.42	50.....	3.24	33.42	26.63
75......	2.92	33.52	75.....	2.92	33.52	26.73
100.....	4.05	33.98	100....	4.05	33.98	26.99
150.....	3.71	34.13	150....	3.71	34.13	27.14
200.....	3.52	34.22	200....	3.52	34.22	27.24
300.....	3.30	34.44	300....	3.30	34.44	27.43
405.....	3.13	34.57	400....	3.15	34.56	27.54
598.....	3.84	34.80	600....	3.85	34.80	27.66

Station 6759; 26 May; 42°41.5′ N., 50°01′ W.; depth 1,518 m.; dynamic height 971.129.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	13.21	33.83	0.....	13.21	33.83	25.46
25......	12.13	34.84	25....	12.13	34.84	26.46
50......	12.17	35.22	50....	12.17	35.22	26.75
75......	12.00	35.28	75....	12.00	35.28	26.83
99......	12.02	35.31	100...	12.00	35.31	26.85
149.....	9.94	35.01	150...	9.85	35.00	27.00
199.....	7.20	34.64	200...	7.20	34.64	27.13
298.....	6.45	34.84	300...	6.40	34.84	27.39
397.....	5.48	34.88	400...	5.45	34.88	27.54
593.....	4.20	34.82	600...	4.20	34.82	27.65
787.....	4.05	34.86	800...	4.05	34.86	27.69
986.....	3.81	34.87	1,000..	3.80	34.87	27.73
1,487...	3.54	34.875				

Station 6760; 26 May; 42°30′ N., 51°15′ W.; depth 2,195 m.; dynamic height 971.225.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	17.36	36.08	0.....	17.36	36.08	26.27
25......	15.99	35.98	25....	15.89	35.98	26.52
50......	15.78	36.07	50....	15.78	36.07	26.64
75......	15.12	35.94	75....	15.12	35.94	26.69
99......	14.71	35.84	100...	14.65	35.84	26.71
149.....	13.40	35.62	150...	13.40	35.62	26.81
199.....	12.96	35.58	200...	12.90	35.58	26.88
298.....	10.03	35.22	300...	9.95	35.21	27.15
387.....	7.92	35.02	400...	7.70	35.01	27.35
588.....	5.62	34.98	600...	5.50	34.98	27.62
793.....	4.43	34.905	800...	4.45	34.91	27.69
993.....	4.51	34.975	1,000..	4.50	34.97	27.73
1,496...	3.72	34.91	(1,500).	3.70	34.91	27.76

Station 6761; 26 May; 42°14.5′ N., 51°41′ W.; depth 3,109 m.; dynamic height 971.238.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0......	17.71	36.06	0.....	17.71	36.06	26.17
25......	15.64	35.94	25....	15.64	35.94	26.56
51......	15.16	35.94	50....	15.15	35.94	26.69
76......	14.55	35.83	75....	14.55	35.84	26.73
102.....	13.83	35.69	100...	13.85	35.70	26.78
152.....	13.47	35.64	150...	13.45	35.64	26.81
203.....	13.19	35.62	200...	13.20	35.62	26.85
305.....	10.86	35.34	300...	11.00	35.35	27.07
376.....	8.84	35.11	400...	8.25	35.06	27.30
568.....	5.70	34.96	600...	5.50	34.96	27.60
761.....	4.79	34.97	800...	4.70	34.97	27.71
954.....	4.33	34.96	1,000..	4.30	34.96	27.74
1,444...	3.79	34.93				

STATIONS OCCUPIED IN 1958—Continued

Station 6762; 26 May; 41°59.5′ N., 51°59′ W.; depth 3,749 m.; dynamic height 971.045.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0.......	15.23	34.03	0......	15.23	34.03	25.19
27......	7.91	34.44	25.....	8.45	34.42	26.77
53......	6.25	34.40	50.....	6.45	34.41	27.05
80......	1.98	34.02	75.....	2.65	34.06	27.19
106.....	3.46	34.29	100....	3.10	34.23	27.28
160.....	3.60	34.38	150....	3.60	34.37	27.35
213.....	3.31	34.40	200....	3.40	34.40	27.39
319.....	2.55	34.34	300....	2.65	34.35	27.42
405.....	4.40	34.76	400....	4.35	34.75	27.57
604.....	4.57	34.905	600....	4.55	34.90	27.67
800.....	4.53	34.93	800....	4.55	34.93	27.69
1,007...	4.60	34.97	1,000..	4.60	34.97	27.72
1,533...	3.70	34.92	1,500..	3.75	34.92	27.77

Station 6763; 27 May; 42°00′ N., 51°02′ W.; depth 3,200 m.; dynamic height 971.190.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0.......	16.95	35.93	0......	16.95	35.93	26.25
25......	16.03	36.03	25.....	16.03	36.03	26.55
50......	14.45	35.78	50.....	14.45	35.78	26.71
74......	13.94	35.70	75.....	13.95	35.70	26.75
99......	13.76	35.68	100....	13.75	35.68	26.78
149.....	13.40	35.64	150....	13.40	35.64	26.82
198.....	12.97	35.58	100....	12.90	35.57	26.88
297.....	9.48	35.16	300....	9.40	35.15	27.19
418.....	6.62	34.98	400....	6.95	35.00	27.45
623.....	3.88	34.76	600....	4.00	34.78	27.63
826.....	3.90	34.845	800....	3.90	34.84	27.69
1,034...	3.70	34.86	1,000..	3.75	34.86	27.72
1,552...	3.52	34.88	1,500..	3.55	34.88	27.75

Station 6764; 27 May; 42°00′ N., 49°27′ W.; depth 3,292 m.; dynamic height 971.065.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0.......	12.42	33.26	0......	12.42	33.26	25.17
25......	9.77	34.40	25.....	9.77	34.40	26.54
51......	9.10	34.35	50.....	9.10	34.35	26.61
76......	5.91	34.06	75.....	5.95	34.06	26.84
102.....	8.20	34.64	100....	8.15	34.64	26.99
152.....	3.99	34.18	150....	4.15	34.19	27.15
203.....	2.30	34.18	200....	2.30	34.18	27.31
305.....	4.84	34.76	300....	4.80	34.74	27.51
388.....	4.21	34.79	400....	4.20	34.79	27.62
579.....	3.97	34.84	600....	3.95	34.84	27.68
769.....	3.78	34.86	800....	3.80	34.87	27.73
970.....	4.06	34.93	1,000..	4.05	34.93	27.74
1,484...	3.68	34.92				

Station 6765; 27 May; 41°32′ N., 48°56′ W.; depth 3,109 m.; dynamic height 971.252.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0.......	18.24	36.17	0......	18.24	36.17	26.12
25......	15.99	36.04	25.....	15.99	36.04	26.56
50......	15.60	36.02	50.....	15.60	36.02	26.63
75......	15.35	36.01	75.....	15.35	36.01	26.69
101.....	15.18	35.98	100....	15.20	35.98	26.70
151.....	14.24	35.77	150....	14.25	35.77	26.75
201.....	13.43	34.64	200....	13.45	35.64	26.81
302.....	10.61	35.30	300....	10.65	35.31	27.10
404.....	8.15	35.05	400....	8.45	35.06	27.30
603.....	5.09	34.89	600....	5.10	34.89	27.59
800.....	4.49	34.92	800....	4.50	34.92	27.69
1,002...	4.15	34.915	1,000..	4.15	34.915	27.72
1,511...	3.52	34.88				

Station 6766; 27 May; 41°04′ N., 48°31′ W.; depth 3,383 m.; dynamic height 971.302.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0.......	18.14	36.11	0......	18.14	36.11	26.10
23......	15.81	36.04	25.....	15.75	36.04	26.62
46......	15.49	36.02	50.....	15.45	36.01	26.67
68......	15.22	35.99	75.....	15.20	35.99	26.70
91......	15.24	36.00	100....	15.10	35.97	26.72
137.....	14.15	35.76	150....	13.80	35.69	26.78
182.....	13.21	35.55	200....	13.20	35.55	26.80
274.....	13.16	35.58	300....	12.90	35.56	26.87
326.....	12.37	35.52	400....	9.40	35.18	27.21
485.....	5.84	34.81	600....	3.55	34.61	27.54
640.....	3.32	34.60	800....	3.95	34.78	27.63
817.....	4.00	34.79	1,000...	3.85	34.82	27.68
1,287...	3.70	34.87				

Station 6767; 27 May; 41°00.5′ N., 47°39′ W.; depth 3,365 m.; dynamic height 971.197.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0.......	17.96	36.10	0......	17.96	36.10	26.14
27......	15.35	35.79	25.....	15.55	35.80	26.48
53......	14.33	35.74	50.....	14.45	35.74	26.68
80......	13.88	35.69	75.....	13.95	35.70	26.75
107.....	13.65	35.66	100....	13.70	35.67	26.79
161.....	13.40	35.64	150....	13.45	35.64	26.81
214.....	11.70	35.34	200....	12.35	35.43	26.87
321.....	3.87	34.22	300....	5.35	34.43	27.20
344.....	6.00	34.60	400....	5.00	34.61	27.39
503.....	3.37	34.63	600....	4.15	34.79	27.62
654.....	4.39	34.875	800....	4.40	34.94	27.71
825.....	4.38	34.94	1,000..	4.20	34.93	27.73
1,263...	3.83	34.895				

Station 6768; 28 May; 41°39.5′ N., 47°15′ W.; depth 4,097 m.; dynamic height 971.050.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0.......	13.39	33.29	0......	13.39	33.29	25.00
22......	8.27	33.38	25.....	7.75	33.39	26.06
45......	4.67	33.53	50.....	4.40	33.57	26.64
67......	3.78	33.80	75.....	3.55	33.85	26.93
89......	3.13	33.94	100....	2.95	33.99	27.10
134.....	2.78	34.19	150....	3.20	34.31	27.34
179.....	3.99	34.51	200....	4.05	34.55	27.44
268.....	4.30	34.68	300....	4.50	34.74	27.54
406.....	5.35	34.955	400....	5.30	34.95	27.62
605.....	4.73	34.97	600....	4.75	34.97	27.70
804.....	4.41	34.97	800....	4.45	34.97	27.74
1,011...	3.99	34.925	1,000..	4.00	34.93	27.75
1,535...	3.63	34.91				

Station 6769; 28 May; 42°00′ N., 47°48′ W.; depth 3,667 m.; dynamic height 971.011.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0.......	12.97	33.44	0......	12.97	33.44	25.21
25......	6.25	33.45	25.....	6.25	33.45	26.32
50......	3.13	33.69	50.....	3.13	33.69	26.85
75......	3.44	33.98	75.....	3.44	33.98	27.05
100.....	3.95	34.19	100....	3.95	34.19	27.17
150.....	3.59	34.36	150....	3.59	34.36	27.34
199.....	4.59	34.67	200....	4.60	34.67	27.48
299.....	5.17	34.91	300....	5.15	34.91	27.61
412.....	4.90	34.94	400....	4.95	34.94	27.65
616.....	4.25	34.93	600....	4.30	34.93	27.71
818.....	4.03	34.93	800....	4.05	34.93	27.74
1,025...	3.75	34.91	1,000..	3.75	34.91	27.76
1,545...	3.50	34.90				

STATIONS OCCUPIED IN 1958—Continued

Station 6770; 28 May; 42°25′ N., 48°34′ W.; depth 3,246 m.; dynamic height 971.022.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	12.92	33.44	0	12.92	33.44	25.22
25	6.89	33.56	25	6.89	33.56	26.32
50	5.39	34.10	50	5.39	34.10	26.94
75	4.86	34.15	75	4.86	34.15	27.04
100	4.78	34.24	100	4.78	34.24	27.12
150	4.70	34.42	150	4.70	34.42	27.27
200	5.03	34.63	200	5.03	34.63	27.40
300	4.15	34.70	300	4.15	34.70	27.55
402	4.97	34.93	400	4.95	34.93	27.64
598	4.40	34.95	600	4.40	34.95	27.72
791	3.95	34.92	800	3.95	34.92	27.75
993	3.41	34.86	1,000	3.40	34.86	27.76
1,505	3.36	34.87				

Station 6771; 28 May; 42°52′ N., 49°18′ W.; depth 1,643 m.; dynamic height 971.023.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	11.80	33.08	0	11.80	33.08	25.16
25	9.22	33.54	25	9.22	33.54	25.96
49	7.20	33.81	50	7.05	33.81	26.50
74	3.66	33.99	75	3.60	34.00	27.05
98	3.26	34.16	100	3.25	34.17	27.22
148	3.63	34.44	150	3.65	34.45	27.40
197	3.79	34.58	200	3.80	34.58	27.49
295	4.55	34.82	300	4.55	34.82	27.61
403	4.37	34.86	400	4.40	34.86	27.65
601	3.82	34.86	600	3.85	34.86	27.71
796	3.58	34.85	800	3.60	34.85	27.73
997	3.47	34.84	1,000	3.45	34.84	27.73
1,503	3.43	34.87				

Station 6772; 28 May; 43°17′ N., 48°46′ W.; depth 1,866 m.; dynamic height 971.039.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	8.80	32.59	0	8.80	32.59	25.29
25	1.78	32.76	25	1.78	32.76	26.22
49	0.11	33.18	50	0.10	33.23	26.70
74	5.19	34.16	75	5.20	34.17	27.02
99	5.88	34.46	100	5.90	34.46	27.16
148	4.97	34.49	150	4.90	34.49	27.30
197	4.60	34.57	200	4.60	34.57	27.40
296	4.88	34.79	300	4.85	34.79	27.54
400	4.62	34.88	400	4.60	34.88	27.64
599	4.16	34.88	600	4.15	34.88	27.69
796	3.59	34.84	800	3.60	34.84	27.72
996	3.49	34.85	1,000	3.50	34.85	27.74
1,500	3.39	34.865				

Station 6773; 29 May; 43°05.5′ N., 48°12′ W.; depth 3,017 m.; dynamic height 970.999.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	14.20	33.44	0	14.20	33.44	24.96
25	7.10	33.62	25	7.10	33.62	26.34
50	6.27	34.27	50	6.27	34.27	26.96
75	6.96	34.61	75	6.96	34.61	27.14
100	5.99	34.59	100	5.99	34.59	27.25
150	4.03	34.50	150	4.03	34.50	27.40
200	4.75	34.73	200	4.75	34.73	27.51
300	4.23	34.79	300	4.23	34.79	27.62
393	4.25	34.84	400	4.25	34.84	27.65
590	3.95	34.87	600	3.95	34.87	27.71
788	3.63	34.86	800	3.65	34.86	27.73
990	3.54	34.87	1,000	3.55	34.87	27.75
1,505	3.37	34.875				

Station 6774; 29 May; 42°52′ N., 47°36′ W.; depth 3,658 m.; dynamic height 971.023.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	14.06	33.25	0	14.06	33.25	24.84
25	4.53	33.51	25	4.53	33.51	26.57
50	4.33	33.89	50	4.33	33.89	26.88
75	6.02	34.42	75	6.02	34.42	27.11
100	5.50	34.47	100	5.50	34.47	27.22
150	6.25	34.74	150	6.25	34.74	27.33
200	5.83	34.77	200	5.83	34.77	27.41
300	5.13	34.84	300	5.13	34.84	27.55
408	5.40	34.99	400	5.40	34.98	27.63
609	4.68	34.98	600	4.70	34.98	27.71
808	4.15	34.94	800	4.15	34.94	27.74
1,011	3.91	34.92	1,000	3.90	34.92	27.76
1,520	3.51	34.90				

Station 6775; 29 May; 42°36.5′ N., 46°52′ W.; depth 4,024 m.; dynamic height 971.274.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	16.83	35.65	0	16.83	35.65	26.07
22	16.01	36.06	25	16.00	36.07	26.59
43	15.89	36.07	50	15.85	36.07	26.63
65	15.70	36.05	75	15.50	36.01	26.66
87	15.22	35.97	100	15.00	35.93	26.70
129	14.59	35.84	150	14.35	35.79	26.74
172	13.96	35.72	200	12.90	35.55	26.86
259	10.74	35.16	300	10.15	35.14	27.05
417	8.82	35.12	400	9.05	35.12	27.22
621	4.00	34.70	600	4.30	34.73	27.56
822	5.00	34.99	800	4.95	34.97	27.68
1,029	4.19	34.93	1,000	4.30	34.94	27.72
1,548	3.66	34.905				

Station 6776; 29 May; 42°17.5′ N., 46°10′ W.; depth 4,755 m.; dynamic height 971.423.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	18.93	36.31	0	18.93	36.28	26.04
25	17.37	36.30	25	17.37	36.30	26.44
50	16.87	36.25	50	16.87	36.25	26.52
75	16.65	36.25	75	16.65	36.25	26.57
101	16.14	36.14	100	16.15	36.14	26.60
150	15.57	36.04	150	15.57	36.04	26.66
200	15.17	35.96	200	15.17	35.96	26.69
301	13.49	35.64	300	13.50	35.64	26.80
361	12.66	35.57	400	12.00	35.48	26.98
543	8.72	35.105	600	7.30	34.99	27.39
726	5.12	34.85	800	5.10	34.90	27.60
918	5.09	34.99	1,000	4.70	34.98	27.71
1,416	3.92	34.92				

Station 6777; 29 May; 42°49′ N., 45°48′ W.; depth 4,727 m.; dynamic height 971.479.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	18.85	36.28	0	18.85	36.28	26.06
25	17.11	36.30	25	17.11	36.30	26.50
51	16.54	36.18	50	16.55	36.18	26.55
76	16.28	36.16	75	16.30	36.16	26.59
102	16.11	36.15	100	16.15	36.15	26.61
152	15.84	36.09	150	15.90	36.09	26.62
202	14.90	35.90	200	14.90	35.91	26.71
304	13.40	35.60	300	13.45	35.61	26.79
397	12.99	35.65	400	12.95	35.65	26.92
592	9.26	35.185	600	9.15	35.17	27.25
785	5.73	34.90	800	5.60	34.90	27.54
984	4.92	34.94	1,000	4.90	34.94	27.66
1,489	4.04	34.935				

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6778; 29 May; 43°15.5′ N., 45°31′ W.; depth 4,709 m.; dynamic height 971.558.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	18.82	36.34	0	18.82	36.34	26.11
23	17.06	36.21	25	17.00	36.21	26.46
47	16.67	36.23	50	16.60	36.23	26.57
71	16.14	36.14	75	16.15	36.14	26.60
95	16.08	36.16	100	16.05	36.15	26.64
142	15.84	36.11	150	15.85	36.11	26.65
189	15.80	36.11	200	15.80	36.11	26.67
284	15.61	36.08	300	15.45	36.05	26.70
370	14.64	35.90	400	14.30	35.84	26.79
561	11.89	35.50	600	11.00	35.40	27.11
757	7.47	35.03	800	6.85	35.03	27.48
959	5.71	35.03	1,000	5.55	35.02	27.65
1,484	3.89	34.90				

Station 6779; 30 May; 43°30′ N., 46°10′ W.; depth 4,572 m.; dynamic height 971.484.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	19.06	36.34	0	19.06	36.34	26.05
24	18.24	36.36	25	18.20	36.36	26.28
49	17.52	36.38	50	17.50	36.38	26.47
73	17.27	36.34	75	17.25	36.34	26.50
98	17.04	36.32	100	17.00	36.32	26.55
147	16.04	36.14	150	16.00	36.13	26.63
196	15.79	36.11	200	15.75	36.10	26.67
294	14.65	35.87	300	14.60	35.86	26.74
405	13.31	35.715	400	13.30	35.73	26.91
605	8.67	35.13	600	8.80	35.14	27.28
805	6.00	35.02	800	6.05	35.02	27.58
1,010	4.77	34.975	1,000	4.80	34.98	27.70
1,525	3.85	34.93				

Station 6780; 30 May; 43°41′ N., 46°47′ W.; depth 4,271 m.; dyanmic height 971.338.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	18.15	35.77	0	18.15	35.77	25.84
24	16.61	36.17	25	16.55	36.17	26.54
49	16.01	36.08	50	16.00	36.07	26.59
73	15.54	36.02	75	15.55	36.02	26.66
97	15.46	36.03	100	15.45	36.03	26.68
146	14.82	35.90	150	14.75	35.89	26.72
195	13.83	35.70	200	13.75	35.69	26.79
292	12.70	35.54	300	12.55	35.52	26.90
393	10.38	35.28	400	10.20	35.27	27.15
597	6.48	34.94	600	6.40	34.94	27.47
779	5.60	35.04	800	5.50	35.04	27.66
980	4.72	35.02	1,000	4.65	35.01	27.75
1,497	3.75	34.91				

Station 6781; 30 May; 43°55′ N., 47°27′ W.; depth 4,097 m.; dynamic height 971.178.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	11.97	33.03	0	11.97	33.03	25.09
24	13.83	35.39	25	13.85	35.44	26.58
48	14.37	35.78	50	14.35	35.78	26.73
71	13.69	35.65	75	13.60	35.64	26.78
95	13.13	35.57	100	12.55	35.54	26.92
142	7.98	34.56	150	7.75	34.53	26.96
190	7.26	34.49	200	7.20	34.50	27.02
285	6.91	34.70	300	6.90	34.73	27.24
416	7.11	35.02	400	7.10	35.01	27.43
621	5.35	35.01	600	5.45	35.01	27.65
825	4.65	34.98	800	4.75	34.98	27.70
1,033	4.12	34.94	1,000	4.20	34.94	27.74
1,556	3.53	34.89				

Station 6782; 30 May; 44°02.5′ N., 47°54′ W.; depth 3,749 m.; dyanmic height 971.024.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	14.48	33.55	0	14.48	33.55	24.99
23	7.64	33.42	25	7.50	33.42	26.13
46	6.58	33.81	50	6.40	33.83	26.60
69	5.20	33.91	75	4.60	33.93	26.89
92	3.34	33.97	100	3.30	34.02	27.10
138	3.25	34.34	150	3.45	34.43	27.40
184	4.27	34.64	200	4.30	34.67	27.52
276	4.31	34.77	300	4.40	34.80	27.60
368	4.63	34.88	400	4.60	34.89	27.65
556	4.20	34.91	600	4.15	34.91	27.72
746	3.85	34.89	800	3.80	34.88	27.73
939	3.62	34.875	1,000	3.60	34.88	27.75
1,436	3.47	34.885				

Station 6783; 30 May; 44°06.5′ N., 48°26′ W.; depth 2,926 m.; dynamic height 970.971.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	8.97	32.72	0	8.97	32.72	25.36
25	5.69	33.75	25	5.69	33.75	26.63
51	2.84	33.80	50	2.85	33.80	26.96
76	2.62	34.04	75	2.60	34.02	27.16
102	2.56	34.23	100	2.55	34.21	27.32
151	3.17	34.48	150	3.15	34.47	27.47
202	3.63	34.64	200	3.60	34.64	27.56
304	4.04	34.80	300	4.05	34.80	27.64
410	4.02	34.83	400	4.00	34.83	27.67
612	3.68	34.84	600	3.70	34.84	27.71
814	3.55	34.855	800	3.55	34.85	27.73
1,018	3.45	34.85	1,000	3.45	34.85	27.74
1,534	3.39	34.86				

Station 6784; 30 May; 44°08.5′ N., 48°43′ W.; depth 1,646 m.; dynamic height 971.042.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.99	32.30	0	5.99	32.30	25.44
24	1.80	32.83	25	1.65	32.84	26.29
49	−0.15	33.27	50	−0.15	33.28	26.75
73	0.17	33.48	75	0.20	33.49	26.90
97	0.43	33.72	100	0.45	33.74	27.08
145	1.10	33.95	150	1.20	33.98	27.43
194	2.09	34.28	200	2.20	34.32	27.44
291	4.03	34.74	300	4.00	34.74	27.60
400	3.78	34.73	400	3.80	34.73	27.61
595	4.00	34.835	600	4.00	34.83	27.67
786	3.64	34.84	800	3.65	34.84	27.71
983	3.52	34.845	1,000	3.50	34.84	27.72
1,476	3.47	34.84				

Station 6785; 30 May; 44°09.5′ N., 48°55′ W.; depth 622 m.; dynamic height 971.103.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.87	32.60	0	7.87	32.60	25.44
25	0.01	32.89	25	0.01	32.89	26.42
51	−0.34	33.10	50	−0.35	33.09	26.59
76	−0.14	33.31	75	−0.15	33.30	26.76
102	0.32	33.64	100	0.30	33.63	27.00
152	0.49	33.78	150	0.50	33.77	27.11
204	0.61	33.88	200	0.60	33.87	27.18
306	1.30	34.13	300	1.20	34.11	27.34
394	3.07	34.55	400	3.15	34.57	27.55
589	3.92	34.84	(600)	3.95	34.84	27.68

STATIONS OCCUPIED IN 1958—Continued

Station 6786; 30–31 May; 44°09.5′ N., 49°04′ W.; depth 188 m.; dynamic height 971.139.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	8.72	32.68	0	8.72	32.68	25.37
25	1.52	32.71	25	1.52	32.71	26.19
49	0.74	33.10	50	0.75	33.10	26.55
74	0.75	33.15	75	0.75	33.16	26.60
99	−0.01	33.36	100	0.00	33.36	26.80
148	0.28	33.50	150	0.30	33.50	26.90

Station 6787; 31 May; 44°09′ N., 49°10′ W.; depth 86 m.; dynamic height 971.135.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	8.90	32.68	0	8.90	32.68	25.34
25	1.95	32.81	25	1.95	32.81	26.25
49	1.20	33.10	50	1.15	33.10	26.53
74	0.14	33.24	75	0.10	33.24	26.71

Station 6788; 31 May; 44°10′ N., 49°21′ W.; depth 55 m.; dynamic height 971.143.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	9.63	32.69	0	9.63	32.69	25.23
20	3.82	32.73	25	2.80	32.75	26.14
46	1.24	32.88	...	1.10	32.90	26.37

Station 6789; 31 May; 44°58′ N., 49°24′ W.; depth 68 m.; dynamic height 971.140.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	8.65	32.67	0	8.65	32.67	25.37
25	3.11	32.69	25	3.11	32.69	26.05
51	0.31	33.00	50	0.35	32.98	26.48

Station 6790; 31 May; 44°56.5′ N., 49°01′ W.; depth 91 m.; dynamic height 971.138.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	5.97	32.52	0	5.97	32.52	25.62
25	2.92	32.58	25	2.92	32.58	25.99
51	−0.43	32.96	50	−0.35	32.94	26.48
76	−0.55	....	(75)	−0.55	33.07	26.59

Station 6791; 31 May; 44°55′ N., 48°52′ W.; depth 640 m.; dynamic height 971.080.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	5.35	32.46	0	5.35	32.46	25.65
25	−0.50	32.84	25	−0.50	32.84	26.41
49	−0.23	33.07	50	−0.20	33.08	26.59
74	−0.26	33.23	75	−0.25	33.24	26.72
98	0.00	33.44	100	0.00	33.45	26.88
147	0.44	33.78	150	0.45	33.79	27.12
196	0.87	33.98	200	0.90	34.00	27.27
294	2.13	34.37	300	2.20	34.39	27.49
382	3.15	34.61	400	3.30	34.64	27.59
584	3.95	34.81	(600)	3.95	34.82	27.67

Station 6792; 31 May; 44°55′ N., 48°38′ W.; depth 1,536 m.; dynamic height 971.007.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	7.26	32.48	0	7.26	32.48	25.42
24	5.14	33.52	25	5.10	33.53	26.52
49	4.43	33.68	50	4.40	33.69	26.73
73	3.09	33.88	75	3.00	33.89	27.02
97	1.79	34.01	100	1.90	34.02	27.22
145	4.66	34.58	150	4.65	34.59	27.41
194	3.87	34.60	200	3.85	34.60	27.50
291	3.81	34.71	300	3.85	34.72	27.60
175	4.32	34.61	400	4.00	34.82	27.67
352	4.00	34.78	600	3.80	34.84	27.70
537	3.86	34.845	800	3.65	34.84	27.71
728	3.65	34.84	1,000	3.50	34.85	27.74
1,031	3.48	34.85				

Station 6793; 31 May; 44°55′ N., 48°27′ W.; depth 2,103 m.; dynamic height 971.002.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	8.23	32.83	0	8.23	32.83	25.56
26	3.04	33.06	25	3.25	33.04	26.32
52	0.96	33.64	50	1.00	33.60	26.94
78	5.22	34.43	75	4.55	34.32	27.21
104	5.39	34.54	100	5.40	34.53	27.27
155	5.25	34.67	150	5.25	34.66	27.40
207	5.45	34.82	200	5.45	34.80	27.48
311	5.02	34.89	300	5.10	34.89	27.59
410	4.53	34.88	400	4.60	34.88	27.64
614	4.10	34.89	600	4.15	34.89	27.70
818	3.78	34.88	800	3.80	34.88	27.73
1,024	3.62	34.87	1,000	3.65	34.87	27.74
1,537	3.43	34.88				

Station 6794; 31 May; 44°56.5′ N., 47°50′ W.; depth 3,155 m.; dynamic height 970.966.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	9.19	32.94	0	9.19	32.94	25.50
26	3.90	33.32	25	4.10	33.29	26.43
52	3.43	34.00	50	3.45	33.95	27.02
78	2.70	34.13	75	2.80	34.12	27.23
104	1.99	34.22	100	2.05	34.21	27.36
155	2.56	34.40	150	2.50	34.39	27.46
206	2.72	34.50	200	2.70	34.49	27.52
310	4.00	34.80	300	3.90	34.78	27.64
400	3.98	34.84	400	4.00	34.84	27.68
602	3.75	34.86	600	3.75	34.86	27.72
805	3.60	....	800	3.60	34.86	27.74
1,009	3.44	34.855	1,000	3.45	34.86	27.75
1,524	3.39	34.87				

Station 6795; 31 May; 44°46.5′ N., 47°09′ W.; depth 3,749 m.; dynamic height 971.054.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth meters	Temperature, °C.	Salinity, ‰	σt
0	14.56	33.70	0	14.56	33.70	25.09
26	10.65	33.78	25	10.80	33.77	25.88
51	7.04	33.98	50	7.05	33.96	26.61
77	7.54	34.51	75	7.50	34.48	26.95
103	7.66	34.72	100	7.65	34.71	27.12
153	1.75	34.14	150	1.80	34.15	27.33
205	1.75	34.26	200	1.75	34.24	27.40
308	6.00	34.97	300	5.80	34.94	27.55
414	4.44	34.84	400	4.60	34.85	27.62
619	4.21	34.90	600	4.25	34.90	27.70
823	3.79	34.88	800	3.85	34.88	27.72
1,032	3.63	34.875	1,000	3.65	34.88	27.74
1,557	3.44	34.88				

Station 6796; 1 June; 44°36.5′ N., 46°31′ W.; depth 3,731 m.; dynamic height 971.068.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	14.60	33.52	0	14.60	33.52	24.94
26	6.93	33.59	25	7.20	33.59	26.30
51	3.65	33.68	50	3.65	33.67	26.79
77	6.72	34.37	75	6.45	34.34	26.99
102	7.40	34.59	100	7.40	34.59	27.06
152	6.26	34.58	150	6.35	34.58	27.19
203	4.98	34.50	200	5.00	34.50	27.30
305	6.22	34.95	300	6.20	34.95	27.51
404	5.24	34.91	400	5.25	34.91	27.60
607	4.98	35.00	600	5.00	35.00	27.70
811	4.30	34.95	800	4.35	34.95	27.73
1,015	3.92	34.92	1,000	3.95	34.92	27.75
1,531	3.57	34.90				

Station 6797; 1 June; 44°26′ N., 45°45′ W.; depth 3,823 m.; dynamic height 971.140.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	10.63	33.40	0	10.63	33.40	25.61
26	7.71	33.50	25	7.70	33.49	26.15
52	9.17	34.49	50	9.15	34.42	26.66
78	8.88	34.70	75	8.90	34.69	26.91
104	8.96	34.77	100	8.95	34.76	26.96
155	8.26	34.70	150	8.30	34.70	27.01
208	9.99	35.24	200	9.85	35.20	27.15
312	5.51	34.60	300	5.85	34.66	27.32
416	5.70	34.88	400	5.70	34.85	27.49
621	5.25	35.01	600	5.35	35.01	27.66
824	4.18	34.91	800	4.30	34.92	27.71
1,033	3.76	34.885	1,000	3.80	34.89	27.74
1,559	3.53	34.885				

Station 6798; 1 June; 44°16′ N., 45°06′ W.; depth 4,353 m.; dynamic height 971.142.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	11.33	33.32	0	11.33	33.32	25.44
26	9.27	33.64	25	9.25	33.62	26.02
51	10.78	34.54	50	10.75	34.53	26.47
77	7.93	34.52	75	8.10	34.53	26.91
102	7.35	34.41	100	7.40	34.42	26.93
153	6.72	34.43	150	6.75	34.43	27.02
204	5.63	34.47	200	5.65	34.46	27.19
306	5.42	34.68	300	5.45	34.66	27.37
396	5.54	34.84	400	5.55	34.84	27.50
595	4.75	34.90	600	4.70	34.90	27.65
795	4.10	34.89	800	4.10	34.89	27.71
997	3.85	34.89	1,000	3.85	34.89	27.73
1,510	3.50	34.88				

Station 6799; 1 June; 44°45′ N., 45°06′ W.; depth 4,024 m.; dynamic height 971.113.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	13.53	33.69	0	13.53	33.69	25.29
26	9.85	33.95	25	9.95	33.94	26.15
51	8.44	34.16	50	8.45	34.15	26.56
77	9.47	34.77	75	9.45	34.77	26.89
102	8.05	34.60	100	8.20	34.61	26.96
153	6.49	34.52	150	6.55	34.52	27.12
204	5.61	34.54	200	5.65	34.53	27.24
306	6.82	34.96	300	6.80	34.95	27.43
400	5.90	34.96	400	5.90	34.96	27.56
604	4.75	34.95	600	4.80	34.95	27.68
811	4.21	34.885	800	4.25	34.89	27.69
1,022	3.70	34.88	1,000	3.75	34.88	27.73
1,560	3.49	34.89				

Station 6800; 1 June; 45°17.5′ N., 45°08′ W.; depth 4,024 m.; dynamic height 971.031.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	12.97	33.85	0	12.97	33.85	25.52
22	9.77	33.98	25	9.50	33.98	26.26
43	8.20	33.95	50	8.15	34.07	26.54
65	7.96	34.45	75	7.05	34.43	26.98
87	6.17	34.38	100	5.70	34.40	27.14
130	5.19	34.50	150	5.10	34.57	27.35
173	5.02	34.64	200	4.90	34.69	27.46
260	4.73	34.75	300	4.60	34.78	27.56
380	4.40	34.82	400	4.35	34.83	27.63
583	4.15	34.88	600	4.10	34.88	27.70
795	3.59	34.84	800	3.60	34.84	27.72
1,004	3.48	34.86	1,000	3.50	34.86	27.75
1,545	3.40	34.87				

Station 6801; 1 June; 45°18.5′ N., 45°45′ W.; depth 3,567 m.; dynamic height 970.983.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	11.65	33.78	0	11.65	33.78	25.73
26	7.14	33.82	25	7.30	33.82	26.47
51	5.81	34.06	50	5.85	34.06	26.85
77	4.80	....	75	4.85	34.12	27.02
102	4.32	34.28	100	4.35	34.27	27.19
152	3.80	34.54	150	3.80	34.53	27.45
203	4.19	34.71	200	4.20	34.70	27.55
305	4.13	34.80	300	4.15	34.80	27.63
362	4.06	34.82	400	4.00	34.83	27.67
558	3.78	34.85	600	3.75	34.85	27.71
764	3.59	34.845	800	3.60	34.85	27.73
970	3.53	34.87	1.000	3.55	34.87	27.75
1,509	3.38	34.87				

Station 6802; 2 June; 45°18.5′ N., 46°32′ W.; depth 3,227 m.; dynamic height 970.964.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	11.13	33.64	0	11.13	33.64	25.71
26	5.85	33.92	25	6.05	33.92	26.72
51	5.10	34.00	50	5.15	34.00	26.89
77	3.96	34.20	75	3.95	34.18	27.16
103	4.85	34.42	100	4.80	34.40	27.24
153	3.52	34.56	150	3.55	34.55	27.49
204	4.41	34.79	200	4.40	34.78	27.58
307	4.02	34.81	300	4.05	34.81	27.65
381	4.02	34.84	400	4.00	34.84	27.68
578	3.75	34.85	600	3.75	34.85	27.71
780	3.64	34.86	800	3.65	34.86	27.73
987	3.46	34.86	1,000	3.45	34.86	27.75
1,528	3.34	34.88				

Station 6803; 2 June; 45°18.5′ N., 47°19′ W.; depth 2,926 m.; dynamic height 970.933.

Observed: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	7.53	33.06	0	7.53	33.06	25.84
23	3.96	32.99	25	3.75	33.03	26.26
47	2.19	33.61	50	2.20	33.65	26.90
70	2.52	33.83	75	2.25	33.83	27.03
93	1.18	33.82	100	1.30	33.87	27.14
140	2.63	34.24	150	2.85	34.32	27.38
186	3.53	34.55	200	3.65	34.60	27.52
279	3.91	34.74	300	3.90	34.76	27.63
400	3.95	34.82	400	3.95	34.82	27.67
598	4.09	34.895	600	4.10	34.89	27.71
796	3.78	34.885	800	3.80	34.88	27.73
1,000	3.48	34.865	1,000	3.50	34.87	27.76
1,521	3.40	34.88				

STATIONS OCCUPIED IN 1958—Continued

Station 6804; 2 June; 45°30.5′ N., 47°41′ W.; depth 1,518 m.; dynamic height 970.982.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.91	32.91	0	6.91	33.91	25.80
23	5.58	33.12	25	5.30	33.18	26.22
47	2.64	33.81	50	2.45	33.83	27.01
70	1.24	33.96	75	1.35	34.00	27.24
93	1.88	34.15	100	1.85	34.17	27.34
139	1.70	34.27	150	1.80	34.30	27.45
186	2.33	34.41	200	2.55	34.46	27.52
279	3.61	34.69	300	3.75	34.73	27.61
404	4.11	34.84	400	4.10	34.84	27.67
607	3.85	34.855	600	3.85	34.85	27.70
811	3.61	34.85	800	3.65	34.85	27.72
1,014	3.55	34.865	1,000	3.55	34.86	27.74
1,473	3.41	34.87				

Station 6805; 2 June; 45°41.5′ N., 48°00′ W.; depth 640 m.; dynamic height 971.077.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.43	....	0	5.43	32.59	25.74
25	−0.03	32.79	25	−0.03	32.79	26.35
50	−0.70	32.98	50	−0.70	32.98	26.53
75	−0.33	33.24	75	−0.33	33.24	26.72
99	−0.05	33.42	100	−0.05	33.42	26.86
149	0.28	33.60	150	0.30	33.60	26.98
199	0.66	33.90	200	0.70	33.91	27.21
298	3.30	34.62	300	3.30	34.62	27.58
378	3.56	34.70	400	3.65	34.72	27.62
570	3.95	34.83	(600)	4.00	34.84	27.68

Station 6806; 2 June; 45°48′ N., 48°11′ W.; depth 169 m.; dynamic height 971.129.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.41	32.47	0	5.41	32.47	25.65
25	2.41	32.60	25	2.41	32.60	26.05
50	0.12	32.77	50	0.12	32.77	26.33
75	−0.79	32.92	75	−0.79	32.92	26.48
101	−0.57	33.06	100	−0.60	33.05	26.58
151	−0.20	33.32	150	−0.20	33.31	26.77

Station 6807; 2 June; 45°52.5′ N., 48°19′ W.; depth 110 m.; dynamic height 971.123.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.35	32.43	0	5.35	32.43	25.63
25	4.42	32.51	25	4.42	32.51	25.78
50	−0.15	32.93	50	−0.15	32.93	26.47
75	0.12	33.09	75	0.12	33.09	26.58
100	−0.30	33.22	100	−0.30	33.22	26.70

Station 6808; 2 June; 45°59′ N., 48°29′ W.; depth 97 m.; dynamic height 971.122.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.31	32.56	0	7.31	32.56	25.48
26	2.95	32.62	25	3.10	32.62	26.00
51	0.94	32.76	50	1.00	32.75	26.26
77	−0.32	33.19	75	−0.25	33.16	26.65

Station 6809; 2 June; 46°07.5′ N., 48°44′ W.; depth 77 m.; dynamic height 971.121.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.14	32.57	0	7.14	32.57	25.52
26	3.21	32.65	25	3.35	32.65	26.00
52	0.89	32.77	50	1.10	32.75	26.26
67	0.07	33.08	(75)	−0.25	33.20	26.69

Station 6810; 2 June; 46°16.5′ N., 48°59′ W.; depth 68 m.; dynamic height 971.125.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.31	32.59	0	7.31	32.59	25.51
26	3.64	32.64	25	3.80	32.64	25.96
53	1.98	32.76	50	2.10	32.74	26.18

Station 6811; 2 June; 46°15′ N., 48°27′ W.; depth 89 m.; dynamic height 971.121.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.98	32.57	0	6.98	32.57	25.54
25	3.02	32.64	25	3.02	32.64	26.03
51	1.62	32.72	50	1.70	32.71	26.18
76	−0.18	33.11	75	−0.15	33.09	26.59

Station 6812; 2–3 June; 46°13′ N., 47°57′ W.; depth 115 m.; dynamic height 971.118.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	7.02	32.55	0	7.02	32.55	25.51
25	2.92	32.62	25	2.92	32.62	26.02
51	0.30	32.80	50	0.35	32.79	26.33
76	−0.33	33.06	75	−0.30	33.05	26.56
102	−0.35	33.28	100	−0.35	33.26	26.73

Station 6813; 3 June; 46°12′ N., 47°38′ W.; depth 169 m.; dynamic height 971.121.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.01	32.51	0	6.01	32.51	25.61
25	2.09	32.59	25	2.09	32.59	26.06
50	−0.08	32.82	50	−0.08	32.82	26.37
75	−0.63	32.96	75	−0.63	32.96	26.51
100	−0.57	33.08	100	−0.57	33.08	26.60
150	0.02	33.46	150	0.02	33.46	26.89

Station 6814; 3 June; 46°11′ N., 47°16′ W.; depth 622 m.; dynamic height 971.091.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.08	32.36	0	5.08	32.36	25.60
26	1.21	32.59	25	1.35	32.58	26.11
51	−0.49	32.86	50	−0.40	32.84	26.41
77	−0.70	32.99	75	−0.70	32.97	26.52
103	−0.39	33.24	100	−0.45	33.20	26.70
153	0.40	33.80	150	0.35	33.77	27.12
205	1.36	34.15	200	1.25	34.12	27.35
308	2.68	34.50	300	2.60	34.47	27.52
378	3.51	34.71	400	3.60	34.73	27.63
575	3.81	34.80	(600)	3.85	34.81	27.67

STATIONS OCCUPIED IN 1958—Continued

Station 6815; 3 June; 46°10′ N., 46°58′ W.; depth 1,463 m.; dynamic height 971.021.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.42	32.30	0	5.42	32.30	25.51
25	1.94	32.84	25	1.94	32.84	26.27
49	0.33	33.16	50	0.30	33.18	26.65
74	0.18	33.52	75	0.20	33.53	26.93
98	0.34	33.77	100	0.40	33.80	27.14
147	1.35	34.17	150	1.40	34.18	27.38
196	1.95	34.32	200	2.00	34.33	27.45
294	3.14	34.63	300	3.20	34.64	27.60
386	3.75	34.76	400	3.80	34.77	27.65
581	3.90	34.84	600	3.90	34.84	27.69
779	3.68	34.845	800	3.65	34.85	27.72
980	3.56	34.85	1,000	3.55	34.85	27.73
1,390	3.45	34.86				

Station 6816; 3 June; 46°08′ N., 46°28′ W.; depth 1,097 m.; dynamic height 970.947.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	9.75	33.51	0	9.75	33.51	25.85
24	5.94	33.89	25	5.90	33.90	26.72
48	4.76	34.04	50	4.50	34.05	27.00
72	2.93	34.19	75	2.95	34.21	27.28
96	3.75	34.44	100	3.85	33.49	27.41
144	4.71	34.72	150	4.70	34.73	27.51
193	4.59	34.80	200	4.55	34.80	27.59
289	4.12	34.81	300	4.10	34.81	27.65
365	4.18	34.86	400	4.15	34.86	27.68
558	3.76	34.865	600	3.70	34.86	27.73
743	3.61	34.855	800	3.60	34.85	27.73
943	3.50	34.85	1,000	3.50	34.85	27.74

Station 6817; 3 June; 46°06.5′ N., 45°57′ W.; depth 1,829 m.; dynamic height 970.956.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	11.95	33.90	0	11.95	33.90	25.76
26	6.15	33.94	25	6.35	33.94	26.69
52	5.56	34.02	50	5.60	34.01	26.84
78	3.39	34.26	75	3.45	34.23	27.24
103	3.42	34.43	100	3.40	34.42	27.41
154	3.70	34.63	150	3.70	34.62	27.54
206	3.93	34.76	200	3.95	34.75	27.61
309	3.86	34.80	300	3.85	34.80	27.66
400	3.79	34.81	400	3.80	34.81	27.68
602	3.64	34.83	600	3.65	34.83	27.70
805	3.60	34.84	800	3.60	34.84	27.72
1,010	3.51	34.85	1,000	3.50	34.85	27.74
1,529	3.39	34.87				

Station 6818; 3 June; 46°04′ N., 45°17′ W.; depth 2,743 m.; dynamic height 970.976.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	12.17	33.57	0	12.17	33.57	25.46
25	5.50	33.69	25	5.50	33.69	26.60
49	4.45	33.84	50	4.40	33.85	26.85
74	4.14	34.24	75	4.15	34.25	27.20
98	4.41	34.44	100	4.40	34.45	27.33
147	4.62	34.63	150	4.60	34.63	27.44
196	4.01	34.67	200	4.00	34.67	27.55
294	3.89	34.78	300	3.90	34.78	27.64
387	3.83	34.80	400	3.85	34.80	27.66
581	3.79	34.845	600	3.75	34.85	27.71
774	3.57	34.85	800	3.55	34.85	27.73
971	3.46	34.85	1,000	3.45	34.85	27.74
1,465	3.36	34.87				

Station 6819; 3 June; 46°02.5′ N., 44°41′ W.; depth 3,658 m.; dynamic height 971.050.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	13.78	33.91	0	13.78	33.91	25.41
25	9.91	33.96	25	9.91	33.96	26.18
50	8.66	34.09	50	8.66	34.09	26.48
75	7.73	34.50	75	7.73	34.50	26.94
100	6.26	34.39	100	6.26	34.39	27.06
150	5.94	34.56	150	5.94	34.56	27.23
199	5.02	34.62	200	5.00	34.62	27.40
299	4.85	34.80	300	4.85	34.80	27.55
397	4.73	34.88	400	4.75	34.88	27.62
593	3.97	34.86	600	3.95	34.86	27.70
788	3.64	34.86	800	3.65	34.86	27.73
988	3.66	34.895	1,000	3.65	34.89	27.75
1,492	3.38	34.88				

Station 6820; 4 June; 46°23′ N., 44°42′ W.; depth 1,829 m.; dynamic height 970.980.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	13.35	33.85	0	13.35	33.85	25.45
25	7.84	33.98	25	7.84	33.98	26.51
50	5.42	33.92	50	5.42	33.92	26.79
75	5.05	34.28	75	5.05	34.28	27.12
100	4.00	34.35	100	4.00	34.35	27.29
150	5.38	34.73	150	5.38	34.73	27.44
200	5.00	34.79	200	5.00	34.79	27.53
300	4.18	34.82	300	4.18	34.82	27.65
387	4.06	34.84	400	4.05	34.84	27.67
583	3.87	34.865	600	3.85	34.86	27.71
782	3.61	34.855	800	3.60	34.86	27.74
982	3.50	34.86	1,000	3.50	34.86	27.75
1,487	3.42	34.875				

Station 6821; 4 June; 46°29′ N., 44°42′ W.; depth 612 m.; dynamic height 970.957.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	11.74	33.77	0	11.74	33.77	25.70
25	5.78	33.75	25	5.78	33.75	26.61
49	5.67	34.16	50	5.65	34.17	26.96
74	5.42	34.38	75	5.40	34.39	27.15
98	4.50	34.44	100	4.50	34.45	27.32
147	4.42	34.63	150	4.35	34.63	27.47
196	3.45	34.66	200	3.45	34.66	27.59
294	3.89	34.78	300	3.90	34.79	27.65
394	3.91	34.84	400	3.90	34.84	27.69
593	3.67	34.85	600	3.65	34.85	27.72

Station 6822; 4 June; 46°37′ N., 44°42′ W.; depth 229 m.; dynamic height 970.956.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	12.18	33.79	0	12.18	33.79	25.64
26	5.84	33.81	25	6.10	33.81	26.63
52	4.42	33.98	50	4.55	33.96	26.92
78	3.33	34.20	75	3.35	34.18	27.21
103	3.36	34.30	100	3.35	34.28	27.29
154	3.71	34.62	150	3.70	34.60	27.52
206	3.76	34.71	200	3.75	34.70	27.59

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6823; 4 June; 46°44′ N., 44°42′ W.; depth 169 m.; dynamic height 970.067.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σt
0	10.50	33.58	0	10.50	33.58	25.77
25	5.16	33.85	25	5.16	33.85	26.77
50	5.22	34.04	50	5.22	34.04	26.91
75	4.34	33.99	75	4.34	33.99	26.96
101	3.43	34.10	100	3.45	34.09	27.13
151	3.63	34.52	150	3.65	34.51	27.45

Station 6824; 4 June; 46°54.5′ N., 44°42′ W.; depth 150 m.; dynamic height 970.965.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σt
0	10.44	33.71	0	10.44	33.71	25.89
24	6.74	33.98	25	6.65	33.98	26.68
49	5.44	34.01	50	5.40	34.01	26.87
73	4.73	34.04	75	4.65	34.05	26.98
97	3.89	34.24	100	3.85	34.25	27.23
136	3.63	34.37	(150)	3.60	34.41	27.38

Station 6825; 4 June; 46°54.5′ N., 44°59′ W.; depth 201 m.; dynamic height 970.958.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σt
0	10.81	33.94	0	10.81	33.94	26.00
25	6.38	33.97	25	6.38	33.97	26.71
50	5.46	34.03	50	5.46	34.03	26.87
75	4.30	34.05	75	4.30	34.05	27.02
101	3.63	34.13	100	3.65	34.12	27.15
151	3.61	34.55	150	3.60	34.54	27.48
191	3.67	34.63	(200)	3.70	34.64	27.55

Station 6826; 4 June; 46°54′ N., 45°06′ W.; depth 226 m.; dynamic height 970.963.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σt
0	11.16	33.90	0	11.16	33.90	25.91
24	8.45	33.94	25	8.35	33.94	26.41
48	5.70	34.00	50	5.50	34.00	26.84
71	4.47	34.03	75	4.20	34.04	27.02
95	3.38	34.15	100	3.35	34.18	27.21
142	3.21	34.44	150	3.25	34.49	27.47
190	3.76	34.70	200	3.80	34.75	27.63

Station 6827; 4 June; 46°53′ N., 45°32′ W.; depth 284 m.; dynamic height 970.960.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σt
0	11.67	33.89	0	11.67	33.89	25.81
25	6.70	33.92	25	6.70	33.92	26.63
50	5.11	33.95	50	5.11	33.95	26.85
75	4.21	34.07	75	4.21	34.07	27.05
100	3.34	34.19	100	3.34	34.19	27.22
149	3.62	34.53	150	3.65	34.54	27.47
199	3.81	34.70	200	3.80	34.70	27.59
269	3.87	34.76	300	3.85	34.78	27.64

Station 6828; 4 June; 46°52.5′ N., 45°54′ W.; depth 320 m.; dynamic height 970.972.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σt
0	11.07	33.91	0	11.07	33.91	25.93
25	8.10	33.89	25	8.10	33.89	26.40
50	5.89	33.91	50	5.89	33.91	26.73
75	4.54	33.98	75	4.54	33.98	26.94
100	3.31	34.10	100	3.31	34.10	27.16
150	3.70	34.54	150	3.70	34.54	27.47
199	3.93	34.71	200	3.95	34.71	27.58
299	3.90	34.80	300	3.90	34.80	27.66

Station 6829; 4 June; 46°51.5′ N., 46°22′ W.; depth 620 m.; dynamic height 970.946.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σt
0	10.96	......	0	10.96	33.91	25.96
25	5.97	33.91	25	5.97	33.91	26.72
50	5.09	33.94	50	5.09	33.94	26.85
75	3.56	34.11	75	3.56	34.11	27.15
100	3.37	34.32	100	3.37	34.32	27.33
150	3.93	34.63	150	3.93	34.63	27.52
200	3.90	34.72	200	3.90	34.72	27.60
300	3.88	34.80	300	3.88	34.80	27.66
398	3.71	34.82	400	3.70	34.82	27.70
597	3.53	34.85	600	3.55	34.85	27.73

Station 6830; 4 June; 46°50.5′ N., 46°45′ W.; depth 1,207 m.; dynamic height 970.993.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σt
0	8.57	32.99	0	8.57	32.99	25.64
24	3.47	33.38	25	3.40	33.39	26.58
48	1.87	33.76	50	1.75	33.76	27.02
73	0.72	33.86	75	0.75	33.88	27.18
97	2.40	34.13	100	2.40	34.14	27.27
145	1.46	34.20	150	1.45	34.21	27.40
193	2.02	34.36	200	2.10	34.38	27.48
290	3.32	34.64	300	3.40	34.66	27.60
388	3.78	34.77	400	3.80	34.78	27.65
583	3.87	34.83	600	3.85	34.83	27.68
780	3.66	34.84	800	3.65	34.84	27.71
980	3.51	34.84	1,000	3.50	34.84	27.73
1,132	3.41	34.85				

Station 6831; 4 June; 46°50.5′ N., 47°04′ W.; depth 713 m.; dynamic height 971.033.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σt
0	4.86	32.36	0	5.86	32.36	25.51
25	2.00	32.93	25	2.00	32.93	26.34
49	0.09	33.17	50	0.10	33.18	26.66
74	−0.11	33.49	75	−0.10	33.50	26.92
98	0.36	33.68	100	0.40	33.70	27.06
147	0.82	33.98	150	0.85	34.00	27.27
196	1.59	34.23	200	1.65	34.25	27.42
294	3.03	34.59	300	3.10	34.60	27.58
390	3.76	34.76	400	3.80	34.77	27.65
587	3.90	34.84	600	3.90	34.84	27.69

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6832; 4 June; 46°50′ N., 47°15′ W.; depth 326 m.; dynamic height 971.072.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.88	32.46	0	5.88	32.46	25.59
26	1.29	32.60	25	1.45	32.59	26.11
52	−1.00	32.85	50	−1.00	32.83	26.41
78	−0.76	33.06	75	−0.80	33.04	26.58
103	−0.34	33.28	100	−0.40	33.25	26.74
154	0.48	33.68	150	0.40	33.65	27.02
206	2.01	34.32	200	1.80	34.26	27.42
309	3.56	34.72	300	3.50	34.70	27.62

Station 6833; 4 June; 46°49.5′ N., 47°36′ W.; depth 169 m.; dynamic height 971.117.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.82	32.53	0	6.82	32.53	25.52
25	2.87	32.60	25	2.87	32.60	26.01
51	0.33	32.81	50	0.20	32.80	26.35
76	−0.50	33.00	75	−0.50	32.99	26.53
101	−0.39	33.20	100	−0.40	33.19	26.69
152	−0.08	33.48	150	−0.10	33.47	26.90

Station 6834; 5 June; 46°48.5′ N., 48°11′ W.; depth 112 m.; dynamic height 971.116.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.83	32.53	0	6.83	32.53	25.52
25	2.88	32.58	25	2.88	32.58	25.99
50	0.51	32.78	50	0.51	32.78	26.31
76	−0.50	33.08	75	−0.50	33.07	26.59
101	−0.30	33.29	100	−0.30	33.28	26.75

Station 6835; 5 June; 46°47′ N., 48°45′ W.; depth 89 m.; dynamic height 971.124.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.86	32.58	0	6.86	32.58	25.56
25	5.02	32.59	25	5.02	32.59	25.79
50	1.56	32.74	50	1.56	32.74	26.22
75	−0.27	33.10	75	−0.27	33.10	26.60

Station 6836; 27 June; 49°59.5′ N., 49°00′ W.; depth 1,920 m.; dynamic height 970.907.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.33	33.20	0	6.33	33.20	26.12
25	6.23	34.35	25	6.23	34.35	27.03
49	3.07	34.365	50	3.05	34.36	27.39
74	2.86	34.455	75	2.85	34.46	27.49
99	2.36	34.46	100	2.35	34.46	27.53
148	2.66	34.575	150	2.70	34.58	27.59
197	3.01	34.65	200	3.00	34.65	27.63
296	3.31	34.735	300	3.30	34.74	27.67
382	3.47	34.79	400	3.45	34.78	27.68
575	3.47	34.81	600	3.45	34.80	27.70
768	3.51	34.85	800	3.50	34.85	27.74
963	3.51	34.85	800	3.50	34.85	27.74
963	3.41	34.85	1,000	3.40	34.84	27.74
1,458	3.35	34.88				

Station 6837; 27 June; 49°48′ N., 49°34′ W.; depth 1,408 m.; dynamic height 970.958.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.29	32.41	0	4.29	32.41	25.73
24	0.26	32.98	25	0.20	33.00	26.51
47	−0.05	33.63	50	−0.05	33.66	27.05
71	0.51	33.89	75	0.60	33.90	27.20
95	0.94	34.08	100	1.05	34.10	27.34
142	1.69	34.30	150	1.80	34.32	27.47
189	2.45	34.49	200	2.55	34.52	27.57
284	3.21	34.71	300	3.30	34.72	27.66
352	3.55	34.77	400	3.55	34.78	27.67
531	3.47	34.81	600	3.50	34.82	27.72
712	3.52	34.845	800	3.50	34.84	27.73
900	3.46	34.85	1,000	3.45	34.85	27.75
1,239	3.37	34.865				

Station 6838; 27 June; 49°36.5′ N., 50°04′ W.; depth 622 m.; dynamic height 971.023.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.53	32.70	0	5.53	32.69	25.80
25	3.50	32.82	25	3.50	32.81	26.12
49	−0.70	33.17	50	−0.70	33.18	26.69
74	−0.53	33.47	75	−0.50	33.47	26.92
99	−0.06	33.72	100	−0.05	33.73	27.10
148	0.70	33.97	150	0.75	33.98	27.27
197	1.61	34.26	200	1.65	34.28	27.44
296	2.73	34.56	300	2.75	34.56	27.58
397	3.48	34.71	400	3.50	34.71	27.63
599	3.59	34.83	600	3.60	34.82	27.71

Station 6839; 27 June; 49°31.5′ N., 50°35′ W.; depth 338 m.; dynamic height 971.016.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.67	32.64	0	5.67	32.64	25.75
25	4.23	32.81	25	4.23	32.80	26.04
50	−0.20	33.29	50	−0.20	33.28	26.75
74	−0.56	33.54	75	−0.55	33.54	26.97
99	−0.09	33.70	100	−0.05	33.71	27.09
149	0.83	34.02	150	0.85	34.02	27.29
198	1.53	34.24	200	1.60	34.25	27.42
297	3.43	34.72	300	3.50	34.72	27.64

Station 6840; 27 June; 49°22.5′ N., 51°04′ W.; depth 336 m.; dynamic height 971.099.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.12	32.00	0	5.12	32.00	25.31
24	1.94	32.34	25	1.75	32.35	25.90
49	−1.66	32.72	50	−1.65	32.72	26.35
74	−1.40	32.85	75	−1.40	32.85	26.44
99	−1.03	33.06	100	−1.00	33.07	26.61
147	−0.46	33.50	150	−0.40	32.52	26.96
196	0.62	33.90	200	0.70	33.93	27.22
295	2.25	34.45	300	2.30	34.48	27.55

Station 6841; 27 June; 49°12.5′ N., 51°33′ W.; depth 315 m.; dynamic height 971.112.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.50	31.78	0	5.50	31.78	25.09
27	5.36	31.81	25	5.40	31.80	25.12
52	−1.41	32.69	50	−1.35	32.62	26.26
79	......	33.04	75	−1.15	33.00	26.56
105	−0.70	33.32	100	−0.80	33.27	26.76
158	0.27	33.67	150	0.10	33.62	27.01
210	1.06	34.05	200	0.90	33.98	27.25
315	2.32	34.46	300	2.15	34.40	27.50

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6842; 28 June; 49°08′ N., 51°49′ W.; depth 294 m.; dynamic height 971.137.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.14	31.55	0	6.14	31.54	24.82
25	0.01	32.30	25	0.01	32.29	25.94
51	−1.69	32.64	50	−1.70	32.63	26.27
76	−1.70	32.72	75	−1.70	32.72	26.35
101	−1.62	32.79	100	−1.60	32.78	26.39
152	−1.00	33.23	150	−1.05	33.20	26.72
202	0.17	33.76	200	0.05	33.73	27.10
268	1.54	34.24	[300]	2.10	34.39	27.49

Station 6843; 28 June; 49°03′ N., 52°03′ W.; depth 278 m.; dynamic height 971.174.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.15	31.56	0	6.15	31.56	24.85
23	4.68	31.79	25	4.20	31.86	25.30
47	−1.62	32.61	50	−1.65	32.61	26.26
70	−1.69	32.68	75	−1.70	32.68	26.31
94	−1.72	32.73	100	−1.70	32.74	26.36
140	−1.44	32.85	150	−1.35	32.92	26.50
188	−0.87	33.33	200	−0.60	33.50	26.94
257	1.13	34.17	[300]	1.95	34.39	27.51

Station 6844; 28 June; 48°56.5′ N., 52°16′ W.; depth 357 m.; dynamic height 971.172.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	5.98	31.66	0	5.98	31.65	24.94
24	0.50	32.27	25	0.30	32.29	25.93
49	−1.56	32.68	50	−1.55	32.69	26.31
74	−1.57	32.75	75	−1.55	32.74	26.36
99	−1.55	32.79	100	−1.55	32.78	26.39
147	−1.17	32.92	150	−1.15	32.93	26.50
196	−0.63	33.24	200	−0.55	33.28	26.76
295	1.74	34.29	(300)	1.85	34.31	27.45

Station 6845; 28 June; 48°45.5′ N., 52°42′ W.; depth 180 m.; dynamic height 971.236.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.35	31.50	0	6.35	31.50	24.77
22	5.64	31.69	25	4.70	31.82	25.21
44	−1.22	32.52	50	−1.45	32.56	26.21
66	−1.53	32.65	75	−1.55	32.68	26.30
88	−1.53	32.73	100	−1.55	32.76	26.37
131	−1.54	32.83	150	−1.40	32.90	26.48
175	−1.07	33.00				

Station 6846; 28 June; 48°43′ N., 52°49′ W.; depth 119 m.; dynamic height 971,244.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.35	31.39	0	6.35	31.38	24.67
25	4.03	31.68	25	4.03	31.67	25.17
51	−1.01	32.48	50	−0.80	32.45	26.10
76	−1.47	32.62	75	−1.45	32.62	26.26
102	−1.63	32.70	100	−1.60	32.69	26.32

Station 6847; 28 June; 48°42.5′ N., 52°54′ W.; depth 113 m.; dynamic height 971.251.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.55	31.28	0	6.55	31.28	24.58
26	4.51	31.57	25	4.65	31.56	25.02
52	−0.92	32.48	50	−0.85	32.39	26.06
78	−1.30	32.58	75	−1.30	32.57	26.22
104	−1.46	32.65	100	−1.45	32.64	26.28

Station 6848; 28 June; 48°37′ N., 52°43′ W.; depth 278 m.; dynamic height 971.233.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.86	31.69	0	6.86	31.69	24.86
25	5.68	31.78	25	5.68	31.78	25.07
50	−1.41	32.61	50	−1.41	32.61	26.25
75	−1.62	32.69	75	−1.62	32.68	26.31
100	−1.60	32.76	100	−1.60	32.76	26.38
149	−1.33	32.87	150	−1.30	32.87	26.46
199	−0.56	33.26	200	−0.55	33.27	26.75
249	0.68	33.85	300	2.00	34.23	27.37

Station 6849; 28 June; 48°32.5′ N., 52°32′ W.; depth 230 m.; dynamic height 971.220.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.71	31.82	0	6.71	31.82	24.97
25	6.03	31.84	25	6.03	31.84	25.08
50	−1.44	32.62	50	−1.44	32.62	26.26
75	−1.58	32.71	75	−1.58	32.70	26.33
100	−1.51	32.78	100	−1.51	32.78	26.39
149	−1.21	32.97	150	−1.20	32.97	26.54
199	−0.19	33.41	200	−0.15	33.42	26.87

Station 6850; 28 June; 48°22.5′ N., 52°05′ W.; depth 201 m.; dynamic height 971.198.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.53	31.80	0	6.53	31.80	24.99
25	4.95	31.86	25	4.94	31.85	25.21
49	−1.46	32.62	50	−1.45	32.62	26.26
74	−1.59	32.72	75	−1.60	32.72	26.35
99	−1.41	32.80	100	−1.40	32.80	26.41
148	−0.79	33.08	150	−0.75	33.09	26.61
183	−0.28	33.39	(200)	−0.05	33.53	26.94

Station 6851; 28 June; 48°15.5 N., 51°47′ W.; depth 198 m.; dynamic height 971.189.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.71	31.90	0	6.71	31.90	25.04
25	6.05	31.92	25	6.05	31.92	25.14
49	−1.11	32.62	50	−1.20	32.62	26.26
74	−1.43	32.76	75	−1.40	32.76	26.37
98	−0.98	32.88	100	−0.95	32.89	26.46
148	−0.62	33.20	150	−0.60	33.22	26.71
182	0.24	33.62	[200]	0.50	33.82	27.15

Station 6852; 28 June; 48°08′ N., 51°34′ W.; depth 192 m.; dynamic height 971.189.

Observed values: Depth, meters	Temperature, ° C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, ° C.	Salinity, ‰	σt
0	6.48	32.16	0	6.48	32.16	25.27
25	5.94	32.22	25	5.94	32.21	25.38
49	−0.14	32.62	50	−0.35	32.62	26.22
74	−1.41	32.77	75	−1.40	32.77	26.38
98	−1.11	32.89	100	−1.05	32.90	26.47
147	−0.52	33.18	150	−0.50	33.19	26.69
172	−0.49	33.30	200	−0.45	33.42	26.88

STATIONS OCCUPIED IN 1958—Continued

Station 6853; 28 June; 47°58.5′ N., 51°14′ W.; depth 176 m.; dynamic height 971.172.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.59	32.04	0	5.59	32.04	25.30
25	5.11	32.12	25	5.11	32.12	25.41
49	−0.83	32.68	50	−0.85	32.69	26.29
74	−1.19	32.83	75	−1.20	32.84	26.43
99	−0.60	33.02	100	−0.60	33.02	26.55
148	−0.47	33.26	150	−0.45	33.27	26.75

Station 6854; 28 June; 47°50.5′ N.; 50°56′ W.; depth 119 m.; dynamic height 971.164.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.50	32.37	0	6.50	32.26	25.43
23	5.88	32.38	25	5.50	32.38	25.57
46	1.32	32.66	50	0.80	32.69	26.22
68	−0.05	32.82	75	−0.20	32.88	26.42
91	−0.44	33.06	100	−0.40	33.13	26.64
114	−0.41	33.19				

Station 6855; 28 June; 47°41.5′ N., 50°38′ W.; depth 121 m.; dynamic height 971.163.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.73	32.39	0	6.73	32.38	25.42
25	6.31	32.40	25	6.31	32.39	25.48
50	0.51	32.73	50	0.51	32.73	26.27
75	−0.43	32.90	75	−0.43	32.89	26.44
100	−0.33	33.19	100	−0.33	33.18	26.67

Station 6856; 29 June; 47°33.5′ N., 50°21′ W.; depth 110 m.; dynamic height 971.167.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.89	32.39	0	6.89	32.38	25.39
26	6.35	32.41	25	4.45	32.40	25.70
52	2.23	32.62	50	2.70	32.57	26.01
77	0.20	32.99	75	0.30	32.95	26.46
98	0.04	33.04	100	0.05	33.04	26.55

Station 6857; 29 June; 47°26.5′ N., 50°06′ W.; depth 77 m.; dynamic height 971.164.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.84	32.40	0	6.84	32.40	25.42
26	6.40	32.45	25	6.45	32.44	25.79
52	0.99	32.68	50	1.50	32.65	26.11
73	−0.21	33.08	75	−0.25	33.10	26.60

Station 6858; 29 June; 47°41.5′ N., 49°58′ W.; depth 113 m.; dynamic height 971.165.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.38	32.33	0	6.38	32.33	25.42
25	6.02	32.38	25	6.02	32.38	25.51
51	0.63	32.70	50	0.70	32.68	26.22
76	−0.20	32.97	75	−0.20	32.94	26.48
102	−0.32	33.16	100	−0.30	33.14	26.64

Station 6859; 29 June; 47°54.5′ N., 49°54′ W.; depth 169 m.; dynamic height 971.168.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.15	32.18	0	6.15	32.18	25.33
25	5.54	32.26	25	5.54	32.26	25.46
50	−0.94	32.72	50	−0.94	32.72	26.33
75	−0.57	32.90	75	−0.57	32.90	26.45
101	−0.57	33.02	100	−0.55	33.02	26.55
151	−0.23	33.34	150	−0.25	33.33	26.79

Station 6860; 29 June; 48°13.5′ N., 49°42′ W.; depth 218 m.; dynamic height 971.153.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.82	31.89	0	5.82	31.89	25.14
25	4.46	31.98	25	4.46	31.97	25.35
50	−1.66	32.68	50	−1.66	32.68	26.31
76	−1.60	32.76	75	−1.60	32.75	26.37
101	−1.28	32.88	100	−1.30	32.86	26.45
151	−0.76	33.25	150	−0.75	33.23	26.73
202	0.35	33.73	200	0.35	33.71	27.07

Station 6861; 29 June; 48°33′ N., 49°31′ W.; depth 640 m.; dynamic height 971.090.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.80	32.10	0	5.80	32.10	25.31
25	2.69	32.50	25	2.69	32.49	25.92
50	−1.19	32.84	50	−1.19	32.83	26.42
74	−0.95	33.09	75	−0.95	33.09	26.62
99	−0.86	33.34	100	−0.85	33.34	26.82
149	0.34	33.80	150	0.35	33.81	27.15
198	0.98	34.08	200	1.00	34.08	27.32
297	2.27	34.45	300	2.35	34.45	27.52
397	3.14	34.64	400	3.15	34.64	27.60
604	3.70	34.79	600	3.70	34.78	27.66

Station 6862; 29 June; 49°38.5′ N., 49°28′ W.; depth 1,097 m.; dynamic height 971.066.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.04	32.15	0	6.04	32.15	25.32
25	3.94	32.21	25	3.94	32.20	25.59
49	0.81	33.07	50	0.70	33.07	26.54
74	−0.29	33.27	75	−0.30	33.26	26.73
99	−0.35	33.53	100	−0.35	33.53	26.95
148	0.41	33.90	150	0.45	33.90	27.21
197	1.26	34.17	200	1.25	34.18	27.39
296	2.45	34.50	300	2.50	34.51	27.56
364	3.04	34.64	400	3.25	34.68	27.62
556	3.70	34.81	600	3.70	34.81	27.69
754	3.67	34.845	800	3.65	34.84	27.71
960	3.42	34.87	(1,000)	3.40	34.86	27.76

Station 6863; 29 June; 49°01.5′ N., 49°17′ W.; depth 1,692 m.; dynamic height 970.902.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.78	33.30	0	6.78	33.30	26.13
25	5.12	33.64	25	5.12	33.64	26.61
49	2.71	34.37	50	2.70	34.38	27.43
74	2.68	34.53	75	2.70	34.53	27.55
98	2.97	34.63	100	3.00	34.63	27.61
148	3.55	34.76	150	3.55	34.75	27.65
197	3.66	34.79	200	3.65	34.78	27.66
295	3.70	34.81	300	3.70	34.81	27.69
382	3.64	34.82	400	3.60	34.82	27.71
576	3.50	34.825	600	3.50	34.82	27.72
772	3.48	34.85	800	3.50	34.85	27.74
972	3.42	34.86	1,000	3.40	34.85	27.75
1,483	3.32	34.88				

STATIONS OCCUPIED IN 1958—Continued

Station 6864; 29 June; 49°30.5′ N., 49°07′ W.; depth 1,701 m.; dynamic height 970.909.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.58	32.98	0	6.58	32.98	25.91
25	5.12	34.17	25	5.12	34.17	27.02
49	3.10	34.40	50	3.05	34.40	27.42
74	2.68	34.44	75	2.70	34.44	27.48
98	3.14	34.57	100	3.15	34.57	27.55
147	3.69	34.71	150	3.70	34.70	27.60
196	3.66	34.73	200	3.65	34.73	27.62
294	3.56	34.78	300	3.55	34.78	27.67
393	3.47	34.79	400	3.50	34.78	27.68
592	3.52	34.825	600	3.50	34.82	27.72
794	3.49	34.85	800	3.50	34.84	27.73
998	3.41	34.85	1,000	3.40	34.84	27.74
1,518	3.33	34.87				

Station 6865; 30 June; 50°01.5′ N., 49°05′ W.; depth 1,820 m.; dynamic height 970.900.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.54	32.37	0	4.54	32.36	25.66
25	1.24	33.18	25	1.24	33.17	26.58
50	2.43	34.44	50	2.43	34.43	27.50
75	2.80	34.59	75	2.80	34.59	27.59
99	3.12	34.66	100	3.10	34.66	27.63
149	3.25	34.72	150	3.25	34.71	27.65
199	3.39	34.76	200	3.40	34.75	27.67
298	3.52	34.80	300	3.50	34.80	27.70
408	3.44	34.80	400	3.45	34.80	27.70
612	3.52	34.84	600	3.50	34.83	27.72
815	3.39	34.85	800	3.400	34.84	27.74
1,022	3.37	34.85	1,000	3.40	34.84	27.74
1,544	3.33	34.87				

Station 6866; 1 July; 53°43′ N., 55°48′ W.; depth 113 m.; dynamic height 1937.653.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.87	30.51	0	4.87	30.51	24.16
25	−0.72	32.46	25	−0.72	32.45	26.10
50	−1.55	32.74	50	−1.55	32.74	26.36
74	−1.62	32.83	75	−1.60	32.83	26.43
99	−1.61	32.99	100	−1.60	33.00	26.57

Station 6867; 1 July; 53°50′ N., 55°36′ W.; depth 187 m.; dynamic height 1937.652.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	5.52	30.40	0	5.52	30.40	24.00
24	0.29	32.24	25	0.15	32.29	25.93
49	−1.62	32.81	50	−1.60	32.81	26.42
73	−1.62	32.92	75	−1.60	32.93	26.51
97	−1.60	33.03	100	−1.60	33 05	26.61
146	−1.45	33.25	150	−1.45	33 28	26.79
170	−1.31	33.38	(200)	−1.05	33.54	26.99

Station 6868; 1 July; 53°58′ N., 55°23′ W.; depth 169 m.; dynamic height 1937.626.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4 87	31.19	0	4.87	31.19	24.70
25	0.75	32.23	25	0.75	32.22	25.85
50	−1.65	32.81	50	−1.65	32.80	26.41
75	−1.60	33.00	75	−1.60	32.99	26.56
100	−1.43	33.24	100	−1.43	33.24	26.76
150	−0.76	33.62	150	−0.76	33.61	27.04

Station 6869; 1 July; 54°03.5′ N., 55°11′ W.; depth 163 m.; dynamic height 1937.615.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.67	31.40	0	4.67	31.40	24.89
25	1.98	32.14	25	1.98	32.14	25.70
51	−1 48	32.95	50	−1.45	32.91	26.49
76	−1.45	33.20	75	−1.45	33.18	26.71
101	−1.34	33.38	100	−1.35	33.37	26.86
147	−0.43	33.76	(150)	−0.35	33.77	27.15

Station 6870; 1 July; 54°08.5′ N., 55°04′ W.; depth 169 m.; dynamic height 1937.607.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	4.44	31.82	0	4.44	31.81	25.22
25	1.67	32.17	25	1.67	32.16	25.74
50	−1.48	32.98	50	−1.48	32.98	26.55
75	−1.50	33.19	75	−1.50	33.185	26.72
100	−1.38	33.36	100	−1.38	33.36	26.85
150	−0.11	33.84	150	−0.11	33.83	27.18

Station 6871; 1 July; 54°33′ N., 54°23′ W.; depth 223 m.; dynamic height 1937.626.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.77	31.74	0	3.77	31.74	25.24
25	2.61	31.82	25	2.61	31.82	25.40
50	−1.52	32.82	50	−1.52	32.82	26.43
75	−1.47	33.14	75	−1.47	33.13	26.67
100	−1.33	33.31	100	−1.33	33.31	26.81
149	−0.69	33.66	150	−0.70	33.66	27.08
199	0.30	33.92	200	0.35	33.92	27.24

Station 6872; 1–2 July; 54°46′ N., 53°55′ W.; depth 325 m.; dynamic height 1937.542.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.39	31.60	0	3.39	31.59	25.16
25	−1.27	32.96	25	−1.27	32.96	26.53
51	−1.00	33.42	50	−1.00	33.41	26.89
75	−0.90	33.59	75	−0.90	33.58	27.02
101	−0.40	33.78	100	−0.45	33.76	27.15
151	0.84	34.06	150	0.80	34.05	27.31
202	2.49	34.41	200	2.45	34.39	27.46
303	2.84	34.51	300	2.85	34.50	27.52

Station 6873; 2 July; 54°52.5′ N., 53°39′ W.; depth 636 m.; dynamic height 1937.512.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	3.33	31.77	0	3.33	31.76	25.29
25	−0.60	33.07	25	−0.60	33.06	26.58
50	−0.92	33.46	50	−0.92	33.46	26.93
75	0.05	33.73	75	0.05	33.72	27.10
101	0.94	34.06	100	0.90	34.02	27.29
150	2.50	34.39	150	2.50	34.38	27.45
200	2.98	34.52	200	3.00	34.51	27.52
301	3.35	34.66	300	3.35	34.65	27.59
403	3.33	34.68	400	3.35	34.68	27.61
601	3.62	34.78	600	3.60	34.77	27.67

TABLE OF OCEANOGRAPHIC DATA—Continued

STATIONS OCCUPIED IN 1958—Continued

Station 6874; 2 July; 54°58.5′ N., 53°28′ W.; depth 1,609 m.; dynamic height 1937.457.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	3.47	32.27	0	3.47	32.27	25.68
24	0.22	33.60	25	0.25	33.63	27.01
49	1.07	34.00	50	1.10	34.00	27.26
73	1.38	34.17	75	1.45	34.18	27.37
98	2.04	34.33	100	2.10	34.33	27.44
147	3.12	34.56	150	3.15	34.57	27.55
195	3.54	34.68	200	3.55	34.68	27.59
293	3.34	34.70	300	3.35	34.69	27.62
388	3.43	34.73	400	3.45	34.72	27.64
586	3.77	34.80	600	3.75	34.79	27.66
785	3.75	34.825	800	3.75	34.82	27.69
986	3.57	34.84	1,000	3.55	34.83	27.71
1,496	3.43	34.86	1,500	3.45	34.85	27.74

Station 6875; 2 July; 55°02′ N., 53°21′ W.; depth 2,140 m.; dynamic height 1937.406.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	3.86	32.59	0	3.86	32.59	25.91
24	3.95	33.57	25	3.95	33.60	26.70
49	3.01	34.38	50	3.00	34.42	27.45
73	2.94	34.60	75	2.95	34.60	27.59
97	3.26	34.66	100	3.25	34.66	27.61
145	3.16	34.68	150	3.15	34.68	27.63
194	3.35	34.72	200	3.35	34.71	27.65
291	3.30	34.73	300	3.35	34.73	27.65
363	3.71	34.79	400	3.75	34.81	27.68
551	3.84	34.84	600	3.80	34.84	27.70
743	3.55	34.83	800	3.55	34.82	27.71
938	3.54	34.85	1,000	3.50	34.85	27.74
1,432	3.36	34.875	1,500	3.35	34.87	27.77
1,941	3.07	34.89	(2,000)	3.00	34.88	27.81

Station 6876; 2 July; 55°14.5′ N., 52°54′ W.; depth 3,091 m.; dynamic height 1937.394.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	4.97	32.96	0	4.97	32.96	26.09
26	4.56	33.96	25	4.55	33.90	26.87
51	3.82	34.40	50	3.80	34.37	27.33
77	3.36	34.62	75	3.40	34.61	27.56
102	3.10	34.66	100	3.10	34.65	27.62
153	3.37	34.73	150	3.40	34.72	27.65
204	3.32	34.74	200	3.35	34.74	27.66
306	3.54	34.79	300	3.55	34.78	27.67
404	3.70	34.82	400	3.70	34.82	27.70
606	3.68	34.84	600	3.70	34.84	27.71
809	3.43	34.84	800	3.45	34.83	27.72
1,011	3.39	34.84	1,000	3.40	34.83	27.73
1,525	3.36	34.87	1,500	3.35	34.86	27.76
2,040	3.14	34.90	2,000	3.15	34.89	27.80
2,469	2.76	34.88	2,500	2.75	34.88	27.83
2,934	1.86	34.86	(3,000)	1.65	34.86	27.91

Station 6877; 2 July; 55°31′ N., 52°21′ W.; depth 3,292 m.; dynamic height 1937.395.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	6.12	32.66	0	6.12	32.65	25.72
24	5.96	34.21	25	5.90	34.22	26.97
49	3.42	34.57	50	3.40	34.56	27.52
74	3.17	34.64	75	3.15	34.64	27.60
99	3.17	34.68	100	3.15	34.67	27.63
148	3.35	34.72	150	3.35	34.72	27.65
197	3.26	34.74	200	3.25	34.73	27.66
296	3.31	34.75	300	3.30	34.75	27.67
412	3.39	34.79	400	3.40	34.78	27.69
610	3.45	34.82	600	3.45	34.82	27.72
808	3.25	34.81	800	3.25	34.81	27.73
1,005	3.31	34.84	1,000	3.30	34.83	27.74
1,499	3.33	34.86	1,500	3.35	34.86	27.76
1,994	3.34	34.89	2,000	3.35	34.88	27.77
2,492	3.04	34.905	2,500	3.05	34.90	27.82
2,982	2.41	34.885	3,000	2.35	34.88	27.86
3,208	1.76	34.86				

Station 6878; 2 July; 55°55′ N., 51°40′ W.; depth 3,566 m.; dynamic height 1937.411.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	7.13	33.80	0	7.13	33.79	25.69
25	6.91	34.10	25	6.91	34.10	26.74
51	3.66	34.54	50	3.70	34.52	27.46
77	3.59	34.66	75	3.60	34.64	27.56
102	3.49	34.68	100	3.50	34.67	27.60
152	3.33	34.71	150	3.35	34.70	27.63
203	3.34	34.73	200	3.35	34.72	27.65
305	3.12	34.73	300	3.10	34.73	27.68
400	3.48	34.79	400	3.50	34.79	27.69
600	3.49	34.84	600	3.50	34.83	27.72
801	3.38	34.82	800	3.40	34.82	27.73
1,002	3.40	34.85	1,000	3.40	34.84	27.74
1,508	3.38	34.865	1,500	3.40	34.86	27.76
2,015	3.34	34.875	2,000	3.35	34.87	27.77
2,506	3.07	34.90	2,500	3.10	34.89	27.81
3,007	2.67	34.89	3,000	2.70	34.88	27.83
3,459	1.71	34.86	(3,500)	1.55	34.85	27.91

Station 6879; 3 July; 56°29.5′ N., 50°30′ W.; depth 3,658 m.; dynamic height 1937.396.

Observed values			Scaled values			
Depth, meters	Temperature, ° C.	Salinity, ‰	Depth, meters	Temperature, ° C.	Salinity, ‰	σ t
0	6.57	34.36	0	6.57	34.36	26.99
25	6.21	34.46	25	6.21	34.46	27.12
51	4.63	34.68	50	4.65	34.66	27.47
76	3.62	34.71	75	3.65	34.71	27.61
102	3.03	34.72	100	3.05	34.72	27.68
152	3.11	34.75	150	3.10	34.74	27.69
202	3.13	34.75	200	3.10	34.75	27.70
304	3.12	34.75	300	3.10	34.74	27.69
406	3.14	34.75	400	3.15	34.74	27.68
609	3.19	34.76	600	3.20	34.76	27.70
811	3.40	34.805	800	3.40	34.80	27.71
1,014	3.19	34.80	1,000	3.20	34.80	27.73
1,523	3.23	34.83	1,500	3.25	34.82	27.74
2,032	3.36	34.86	2,000	3.35	34.86	27.76
2,510	3.29	34.90	2,500	3.30	34.89	27.79
3,009	2.90	34.89	3,000	2.90	34.88	27.82
3,509	1.91	34.865	3,500	1.95	34.86	27.89
(3,609)	1.62	34.86				

STATIONS OCCUPIED IN 1958—Continued

Station 6880; 3 July; 57°02.5′ N., 49°24′ W.; depth 3,658 m.; dynamic height 1937.382.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	7.04	34.45	0	7.04	34.44	26.99
25	6.25	34.57	25	6.25	34.56	27.20
49	4.59	34.64	50	4.55	34.64	27.46
74	3.83	34.68	75	3.80	34.67	27.57
98	3.33	34.70	100	3.30	34.70	27.64
147	3.23	34.73	150	3.20	34.73	27.67
196	3.07	34.72	200	3.05	34.72	27.68
294	3.22	34.76	300	3.25	34.76	27.69
400	3.32	34.78	400	3.35	34.78	27.69
599	3.45	34.82	600	3.45	34.82	27.72
799	3.31	34.81	800	3.30	34.80	27.72
998	3.29	34.825	1,000	3.30	34.82	27.72
1,499	3.36	34.85	1,500	3.35	34.84	27.74
1,999	3.38	34.89	2,000	3.40	34.88	27.77
2,424	3.22	34.90	2,500	3.20	34.90	27.81
2,919	2.87	34.90	3,000	2.80	34.89	27.83
3,411	2.20	34.88	(3,500)	1.95	34.86	27.89
(3,508)	1.93	34.87				

Station 6881; 3 July; 57°36.5′ N., 48°14′ W.; depth 3,438 m.; dynamic height 1937.410.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	5.39	34.07	0	5.39	34.06	26.91
25	4.02	34.07	25	4.02	34.06	27.07
51	3.99	34.38	50	4.00	34.36	27.30
76	3.47	34.52	75	3.50	34.51	27.47
102	3.44	34.64	100	3.45	34.62	27.56
152	3.89	34.78	150	3.85	34.77	27.64
203	4.13	34.84	200	4.15	34.83	27.65
305	4.15	34.87	300	4.15	34.86	27.68
402	3.79	34.84	400	3.80	34.83	27.69
602	3.43	34.80	600	3.45	34.80	27.70
803	3.50	34.84	800	3.50	34.83	27.72
1,004	3.39	34.835	1,000	3.40	34.83	27.73
1,509	3.36	34.84	1,500	3.35	34.84	27.84
2,015	3.38	34.89	2,000	3.40	34.88	27.77
2,509	3.13	34.905	2,500	3.15	34.90	27.81
3,015	2.53	34.88	3,000	2.55	34.88	27.85
3,450	1.51	34.86				

Station 6882; 4 July; 58°11.5′ N., 47°05′ W.; depth 3,109 m.; dynamic height 1937.381.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	5.18	34.10	0	5.18	34.10	26.96
26	5.18	34.10	25	5.20	34.09	26.95
52	3.63	34.37	50	3.75	34.34	27.31
78	3.07	34.55	75	3.10	34.51	27.51
104	3.59	34.70	100	3.55	34.67	27.59
155	3.87	34.79	150	3.85	34.77	27.64
208	4.02	34.82	200	4.00	34.81	27.66
312	4.07	34.86	300	4.05	34.85	27.68
413	3.86	34.86	400	3.90	34.85	27.70
620	3.76	34.85	600	3.75	34.84	27.70
827	3.60	34.86	800	3.60	34.86	27.74
1,034	3.48	34.86	1,000	3.50	34.85	27.74
1,553	3.39	34.875	1,500	3.40	34.87	27.77
2,073	3.19	34.91	2,000	3.25	34.90	27.88
2,495	2.82	34.90	2,500	2.80	34.90	27.84
2,935	2.17	34.88	(3,000)	1.95	34.86	27.89
2,988	1.98	34.87				

Station 6883; 5 July; 58°41′ N., 46°01′ W.; depth 2,633 m.; dynamic height 1937.352.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	5.67	34.73	0	5.67	34.72	27.40
24	5.68	34.73	25	5.70	34.73	27.39
49	5.65	34.73	50	5.60	34.72	27.41
73	5.31	34.89	75	5.30	34.88	27.56
97	5.08	34.89	100	5.05	34.89	27.60
145	4.94	34.89	150	4.90	34.89	27.62
194	4.49	34.90	200	4.45	34.90	27.68
291	3.98	34.86	300	4.00	34.86	27.70
324	4.10	34.88	400	4.05	34.87	27.70
520	3.91	34.87	600	3.80	34.86	27.72
716	3.69	34.86	800	3.60	34.86	27.74
912	3.48	34.855	1,000	3.45	34.86	27.75
1,418	3.39	34.88	1,500	3.35	34.88	27.77
1,924	3.11	34.90	2,000	3.05	34.90	27.82
2,534	2.14	34.865	2,500	2.25	34.87	27.87
2,624	1.84	34.85				

Station 6884; 5 July; 58°59.5′ N., 45°18′ W.; depth 2,268 m.; dynamic height 1937.355.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	5.98	34.77	0	5.98	34.77	27.40
25	5.96	34.82	25	5.96	34.82	27.44
50	5.96	34.83	50	5.96	34.82	27.44
74	5.92		75	5.90	34.82	27.45
99	5.81	34.81	100	5.80	34.80	27.44
149	5.06	34.92	150	5.05	34.92	27.63
198	4.78	34.93	200	4.75	34.92	27.66
297	4.36	34.90	300	4.35	34.90	27.69
392	4.04	34.86	400	4.05	34.86	27.69
589	3.84	34.86	600	3.85	34.86	27.71
785	3.52	34.85	800	3.50	34.85	27.74
982	3.49	34.865	1,000	3.50	34.86	27.75
1,482	3.36	34.89	1,500	3.35	34.88	27.77
1,982	2.79	34.89	2,000	2.80	34.89	27.83
2,243	2.51	34.88				

Station 6885; 5–6 July; 59°13′ N., 45°00′ W.; depth 2,030 m.; dynamic height 1937.372.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ t
0	6.67	34.90	0	6.67	34.89	27.40
25	6.65	34.90	25	6.65	34.90	27.41
49	6.63	34.92	50	6.65	34.92	27.43
74	6.62	34.93	75	6.60	34.92	27.43
98	6.44	34.94	100	6.45	34.93	27.45
147	5.63	34.99	150	5.60	34.98	27.60
196	5.31	34.98	200	5.30	34.98	27.64
294	4.99	34.96	300	5.00	34.95	27.66
370	4.75	34.94	400	4.70	34.93	27.67
557	4.39	34.92	600	4.30	34.92	27.71
746	4.04	34.92	800	3.95	34.90	27.73
935	3.82	34.89	1,000	3.80	34.88	27.73
1,410	3.48	34.885	1,500	3.40	34.88	27.77
1,887	2.95	34.90	(2,000)	2.75	34.89	27.84

STATIONS OCCUPIED IN 1958—Continued

Station 6886; 6 July; 59°23′ N., 44°50′ W.; depth 1,170 m. to 914 m.; dynamic height 1937.462.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	6.54	34.85	0	6.54	34.84	27.37
23	6.53	34.87	25	6.55	34.86	27.39
46	6.58	34.88	50	6.60	34.88	27.40
70	6.59	34.88	75	6.60	34.88	27.40
93	6.55	34.92	100	6.50	34.92	27.45
139	5.81	34.88	150	5.60	34.87	27.52
185	5.18	34.86	200	5.20	34.85	27.55
278	5.18	34.90	300	5.20	34.90	27.59
398	5.19	34.95	400	5.20	34.94	27.62
596	4.76	34.92	600	4.75	34.92	27.66
794	4.61	34.92	800	4.60	34.91	27.67
998	4.33	34.91	1,000	4.35	34.90	27.69

Station 6887; 6 July; 59°32′ N., 44°39′ W.; depth 165 m.; dynamic height 1937.595.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.51	32.85	0	−0.51	32.84	26.41
24	−0.56	32.85	25	−0.55	32.85	26.42
48	−0.28	33.11	50	−0.25	33.10	26.60
73	−0.09	33.13	75	−0.05	33.15	26.64
97	0.78	33.50	100	0.85	33.52	26.89
145	1.26	33.64	(150)	1.30	33.64	26.95

Station 6888; 6 July; 59°36′ N., 44°17′ W.; depth 170 m.; dynamic height 1937.676.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	0.50	32.14	0	0.50	32.14	25.80
22	0.28	32.13	25	0.25	32.13	25.80
45	0.08	32.28	50	0.10	32.29	25.94
67	0.19	32.38	75	0.15	32.42	26.04
89	0.07	32.50	100	0.00	32.62	26.21
134	−0.23	33.10	(150)	−0.30	33.28	26.75

Station 6889; 6 July; 59°38′ N., 43°59′ W.; depth 165 m.; dynamic height 1937.653.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σt
0	−0.36	32.43	0	−0.36	32.42	26.07
25	−0.40	32.52	25	−0.40	32.52	26.15
50	−0.36	32.55	50	−0.36	32.54	26.16
75	−0.32	32.62	75	−0.32	32.61	26.21
100	−0.36	32.25	100	−0.36	32.64	26.24
148	0.34	33.33	150	0.40	33.36	26.78

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U.S. TREASURY DEPARTMENT - - - COAST GUARD

BULLETIN No. 45

INTERNATIONAL ICE OBSERVATION AND ICE PATROL SERVICE IN THE NORTH ATLANTIC OCEAN - [SEASON of 1959]

NEW SIGHTS FOR THE 1959 INTERNATIONAL ICE PATROL

In 1959 Douglas R5D "Skymaster" patrol aircraft replaced the B-17'2 used from 1946–1958. Also in 1959 experiments were conducted to bomb icebergs with high temperature magnesium and thermite incendiary bombs. Here a Skymaster Patrol Plane escorts a Coast Guard Albatross amphibian carrying a thermite bomb. Cape Race, Newfoundland is shown in the distance.

U.S. TREASURY DEPARTMENT
COAST GUARD

Bulletin No. 45

INTERNATIONAL ICE OBSERVATION AND ICE PATROL SERVICE

IN THE

NORTH ATLANTIC OCEAN

T. F. BUDINGER
R. P. DINSMORE
P. A. MORRILL
FLOYD M. SOULE

CG-188-14

Season of 1959

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Transmitted herewith is Bulletin No. 45, International Ice Observation and Ice Patrol Service in the North Atlantic Ocean, season of 1959.

A. C. RICHMOND,
Vice Admiral, U. S. Coast Guard,
Commandant.

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PREFACE

This bulletin is No. 45 in the series of annual reports on the International Ice Observation and Ice Patrol Service, season of 1959. It is divided into three general parts. The first is a report of the patrol operations which extended from 5 March to 17 July 1959. Ship, aircraft and communications activities are described in detail and special sections deal with observed monthly ice conditions, experiments in iceberg demolition, a summary of ice conditions 1900–1959 and statistics on ice reports for 1959.

The second part is a special report on a program of ice detection by radar conducted during the 1959 season. The results contained herein, both in theory and observation, set forth the limitations of present day radars for ice detection.

The final section comprises a preliminary presentation of the oceanographic data collected during 1959. Included are charts of dynamic topography of the sea surface (ocean current maps), tables of oceanographic data and a brief discussion of results of the season's four oceanographic surveys and the post-season research cruise to Greenland.

The authors of the section on oceanography are Floyd M. Soule, Oceanographer, USCG, and Lt. P. A. Morrill, USCG. The report on radar ice detection was compiled by Lt. (j.g.) T. F. Budinger, USCG. The remainder was written by Lt. Comdr. R. P. Dinsmore, USCG.

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INTERNATIONAL ICE PATROL, 1959

Between 5 March and 17 July 1959, the International Ice Patrol operated in the North Atlantic Ocean to serve the safety of ships traversing the recognized shipping lanes in the vicinity of the Grand Banks of Newfoundland. This marks the fortieth such occasion of this service which has been conducted annually since 1913, except during wartime years, by operating forces of the United States Coast Guard. The 1959 iceberg year was a severe one. Approximately 693 bergs drifted southward of the 48th parallel of Latitude during the year thus making it the 12th most active in records dating back to 1900 and the second heaviest since 1945.

Capt. Victor F. Tydlacka, USCG, was assigned as Commander, International Ice Patrol. Facilities placed under Captain Tydlacka's command for the conduct of the patrol were the U.S. Coast Guard Air Detachment, Argentia, Newfoundland; U.S. Coast Guard Radio Station *NIK*, Argentia; U. S. Coast Guard Cutter *Evergreen* (oceanographic vessel) and the patrol vessels USCGC *Acushnet* and USCGC *Androscoggin*.

Orders for the preparation and mission of the patrol were promulgated on 13 January by Commander, First Coast Guard District, Boston, Mass., to whom Commander, International Ice Patrol is responsible. Headquarters of the patrol was moved to the U.S. Naval Station at Argentia, Newfoundland, on 3 March and the patrol services were formally inaugurated on 5 March when the first advisory broadcast to shipping was made. The operations of the Ice Patrol this season are summarized as follows:

1. Headquarters of the patrol was located at Argentia, Newfoundland, and all operations were directed from that point.
2. Ice Patrol aircraft conducted 61 ice reconnaissance flights.
3. Ice Patrol vessels maintained a constant guard of the southern limits of ice between 20 April and 14 July.
4. Ice reports were collected from ships, aircraft and other ice observation agencies.
5. Ice advisory bulletins were broadcast twice daily to shipping and were telegraphed to other interested agencies.
6. Special ice information and routing instructions were provided to ships on request.
7. Sea temperatures were collected from ships by radio for the purpose of evaluating ice location, drift and deterioration.
8. Plots were maintained of all known ships' positions in the Ice Patrol area for the purpose of advising any ship standing into danger.

9. Four oceanographic surveys were conducted between 4 April and 26 June for the purpose of mapping ocean currents affecting the drift of icebergs and to collect scientific data.
10. Ice conditions necessitated that Extra Southern Track "A" of the North Atlantic Lane Routes be placed into effect 13 May–3 June. All other track shifts became automatic on scheduled dates.
11. A series of experiments of iceberg demolition by bombing bergs with high temperature incendiary bombs was conducted 3–19 June.
12. A program for the evaluation of radar performance in the detection of icebergs and growlers was conducted throughout the season.

The various aspects of the above summary are dealt with in greater detail by the later sections of this Bulletin.

Pre-season aerial ice observation in January and February indicated light iceberg conditions. None were sighted during these months south of the Strait of Belle Isle. Newfoundland, however, was experiencing its worst winter in many years and local sea ice severely hampered coastwise shipping. No effective transatlantic tracks were menaced by this ice or any other field ice during the year, although ships attempting to use the Cape Race Track "F" during its period of non-scheduled use (1 Dec.–15 May) often found it necessary to divert southward from course to avoid pack ice over the northern slope of the Grand Banks.

Winter severity extended over the Canadian Maritime Provinces and the Gulf of St. Lawrence found itself in the grip of a notably heavy ice season which had closed shipping at the middle of December 1958. By mid-January ice was reported to be drifting seaward through Cabot Strait and reached an extreme seaward limit at the end of February when ice fields extended from near Sable Island on the south to St. Pierre in the east. A more detailed account of the Gulf of St. Lawrence ice conditions is contained within the sections discussing monthly ice conditions. On 1 March the Meteorological Branch of the Canadian Department of Transport commenced its "Aerial Ice Reconnaissance and Ice Advisory Services of the Gulf of St. Lawrence and Adjacent Areas." This splendid service which provides ice bulletins, forecasts and track routing in support of shipping bound for Gulf and River St. Lawrence ports continued until 7 May when the ice threat in the Gulf had ended. Special arrangements with the Canadian Ice Central at Halifax facilitated the rapid exchange of pertinent ice information to provide the most widespread service possible to shipping. The Ice Information Officer at Halifax was Capt. Angus Brown, Canadian Department of Transport, and the Officer-in-Charge of Ice Forecasting was Lt. Comdr. W. E. Markham, RCNR.

At the beginning of March Newfoundland and Labrador pack ice in its annual southward drift had encroached on the northern slope of the

Grand Banks. At that time, although no iceberg threat yet existed, it was deemed expedient to commence the International Ice Patrol and, accordingly, this was done on 5 March.

The first icebergs to be reported for the year were by Belle Isle Radio on 26 February. A more southward advance, however, was indicated when USCGC *Humboldt* sighted three large bergs on 1 March near Lat. 51°31′ N. longitude 48°30′ W.

Aerial reconnaissance served as the primary means of ice observation throughout March. The statistics for aircraft operations this month and the remainder of the season are presented in a later section.

Field ice over the Grand Banks reached its greatest southward extent for the year during the middle of March when it covered the entire northern slope of the Banks. These conditions are illustrated by figure 10 and represent conditions considered to be about average for the Grand Banks regions.

Icebergs made their appearance on the Banks during the last week in March which is a relatively late date for this occurrence. But by the middle of April, however, increasing numbers of bergs arriving and drifting south along the eastern slope of the Grand Banks made it apparent that a severe year was at hand. The establishment of a surface patrol at the southern limits of the icebergs was indicated advisable. The USCGC *Acushnet* was ordered to sea and assumed the duties of Ice Patrol Vessel on 20 April in position 42°06′ N. 49°37′ W. when that cutter began a northward search along the eastern slope of the Banks. Prevailing fog during this period prohibited aerial observation. Thereafter, a ship patrol was maintained until 14 July. Statistics for patrol vessel operations are presented in a following section dealing with Surface Ice Patrol.

The oceanographic program of the international Ice Patrol was commenced on 4 April when the USCGC *Evergreen* sailed on the first of four surveys during the season to map the ocean currents affecting berg drift into the North Atlantic Ocean. A detailed discussion of this work is presented in the last section of this Bulletin. The chart of ocean currents produced by each survey is a valuable instrument for the evaluation of iceberg reports and the prediction of berg drifts.

The scheduled southward shift of shipping lanes from Track "C" to Track "B" on 11 April occurred none too soon. Icebergs were sighted on Track "C" on 13 April and remained until 1 July, the very day it once again became effective.

Field ice in the Cabot Strait and Gulf of St. Lawrence broke up during April. Traffic into the Gulf had commenced the beginning of April with the help of Canadian icebreakers and ice advisories by the Halifax Ice Forecasting Central and by the end of the month the main shipping track was free of ice and in full use. This area had recorded a particularly severe and prolonged season. Especially hard hit was the Newfoundland west coast where ice blocked the ports of Stephenville and Corner Brook until May. Large United States and Canadian icebreakers attempting to convoy supply ships into these ports met with unexpected resistance from heavy ice and often were brought to a standstill.

During the period 10–12 May the Grand Banks was swept by a storm of whole gale proportions where northwest winds of Force 11 and greater were reported. On 11 May it was necessary for the *Androscoggin*, then on patrol duty, to divert and proceed to the assistance of SS *Ulla* which reported serious flooding due to storm damage in position 41°40′ N. 48°30′ W. That this blow had an extreme effect on ice distribution became apparent on 12 May when SS *Esso Camden* reported a large berg in 41°25′ N. 49° W. This berg was later found to be the same one that 36 hours before was at a position 90 miles north-northwest of where it was found by the *Esso Camden* whose position was verified by the SS *Hillcrest* a short time later.

By the following day, 13 May, at least four bergs had been sighted in Track "B", which was then in general use, and radar targets indicated the possibility of others. It was recommended by Commander, International Ice Patrol that shipping tracks be shifted southward to the extra southern Track "A". The North Atlantic Track Agreement Authority concurred and the shift was made effective on 13 May. This marks but the fourth time since the establishment of the International Ice Patrol in 1913 that the use of Track A has been required.

On 14 May the Ice Patrol Vessel returned to the scene when the SS *Ulla* had been reballasted and was no longer in need of assistance. The *Androscoggin* remained with the largest and southernmost of the bergs until 21 May when it melted in position 40°05′ N. 48°20′ W. During this period it was located directly on Track "A" but air observation had shown this to be the only ice endangering that track. The drift of this berg as well as the overall effects of the 10–12 May storm are described more thoroughly in the May discussion of the monthly ice conditions and on figure 15.

From 19–25 May the patrol cutter, now the *Acushnet*, remained with the last survivor of the 12 May eruption. This was the final berg blocking Track "B" but it was not until 1 June that every report could be checked and berg drifts evaluated so that Track "B" once again could be recommended for use. This was so done and the track was made effective on 3 June.

Field ice remained present over the northern slope of the Grand Banks through April but hampered shipping only to and from Newfoundland and such transatlantic traffic as was incautious enough to attempt the unseasonable great circle course close by Cape Race (Track "F"). By the beginning of May all pack ice had receded northward of latitude 48° N. and at the end of May the Newfoundland coast and Strait of Belle Isle was clear. There was, however, a large belt of close pack ice which extended southward from Labrador but well offshore out of visual range of the coastal reporting stations at Belle Isle and the Newfoundland Coast. This tongue of sea ice averaging about 75 miles broad and protruding southward at times as far as latitude 50°15′ N. persisted until the middle of June. This gave rise to confusion among some ships' masters who, anxious to use Canadian Seasonal Track "G" and heeding only that the Strait of Belle Isle was open, set a course on this track only to find that their route was blocked by the offshore ice. Several ships were beset. It is unfortunate that these ships had given so little consideration to the Ice Patrol bulletins which clearly stated that a southward diversion was necessary.

By 15 June all field ice was gone from the eastern approaches to the Strait of Belle Isle and that route was in wide use. High numbers of bergs were present on Track "G" from the 1,000-fathom line to the Strait but this is a usual condition which ships using the Strait of Belle Isle must expect.

During April and May a high concentration of bergs grounded on the northern slope of the Grand Banks and off the southeast coast of Newfoundland. Shipping through this area reported sighting more bergs than have been encountered in recent years. With the opening of the St. Lawrence Seaway in May, the volume of traffic also reached high proportions. Many ships continued to use Track "E" until mid-June staying south of latitude 46° N.

In May and June numerous bergs in the Cape Race vicinity drifted westward and several entered Placentia Bay. This is a most unusual occurrence as bergs are seldom seen west of the 54th meridian.

Track B remained free of any ice threat during June. The nearest encroachment occurred on the 15th when a large berg under the guard of the *Androscoggin* reached position 42° N. 48°30′ W. just 30 miles from the eastbound lane before it recurved northeastward under the influence of the Atlantic Current. The last berg to achieve any significant southward drift melted on 1 July in 43° N. 48°35′ W., which was the day that Track "C", passing through this point, became effective.

Until 11 July the presence of the patrol cutter was required to stand by several bergs drifting between latitudes 45° N. and 44° N. and not too distant from eastbound Track "C". By 14 July no ice existed south of the 46th parallel and the surface patrol was terminated.

Icebergs all over the Grand Banks deteriorated rapidly in late June and early July so that by mid-July only a remaining few were grounded in the area east of the Avalon Peninsula of Newfoundland and there were none on the eastern slope of the Banks. Continually warming sea temperatures and receding ice limits assured that no more ice would threaten the major transatlantic shipping lanes in 1959. The services of the International Ice Patrol were terminated for the season on 17 July 1959.

Except for damaged hull plating and propellers of ships attempting to work through pack ice to enter Newfoundland ports, the only known casualty due to ice within the Ice Patrol area occurred on the night of 24 May when M/S *Lydia Marie*, a 150 ton Newfoundland coastal freighter struck the sloping face of a large growler estimated 100 feet long, 50 feet wide and 20 feet high. The location of the collision was 5 miles southeast of Cape Broyle, Newfoundland, in clear weather and calm sea. The *Lydia Marie* suffered damage to stem, bow timbers and caulking but kept flooding under control and proceeded to St. John's for repairs. The master reported that the ship's radar, on the 3-mile scale, had detected numerous bergs and growlers during the day but had failed to show the ice with which collision occurred. It was suggested at the time that the short scale use of radar represented a poor choice. A stationary target on a collision bearing with a ship proceeding at 10 knots will be visible on the scope less than 15 minutes. In good weather the radar often goes unobserved for such periods.

The tragic loss during the year of the Danish motor vessel *Hans Hedtoft* with 95 passengers and crew cannot go unobserved. The 2,875 ton cargo-passenger vessel, on its maiden voyage returning from Godthaab, Greenland to Copenhagen, struck an iceberg on 30 January 1959 in position 59°05′ N. 43°00′ W., 40 miles south-southeast of Cape Farewell, Greenland. This ship was proceeding through regions known to be infested with ice year round and was especially constructed for ice navigation and equipped with the latest in electronic devices; yet rescue planes and ships failed to find any trace of the ship or survivors.

The most fitting memorial to the lives lost on the *Hans Hedtoft* is an increased vigilance against the menace of ice drifting in the sea.

SURFACE ICE OBSERVATION AND PATROL

Ice conditions in 1959 necessitated a return to the use of patrol vessels which had not been required during the operation of the 1958 Ice Patrol. In fact, since 1950 a surface patrol has been employed only once, in 1957.

Cutters assigned by the Commandant, U.S. Coast Guard for 1959 standby Ice Patrol duties in 1959 were the USCGC *Androscoggin*, Comdr. O. R. Smeder, USCG, and USCGC *Acushnet*, Comdr. H. A. Lynch, USCG. Comdr. A. A. Heckman, USCG, relieved Commander Lynch as commanding officer of *Acushnet* on 8 May. The *Acushnet* assumed 72-hour standby status at home port, Portland, Maine, on 1 March but continued on its regularly assigned duties. The *Androscoggin* was placed on 72-hour standby on 1 April and continued its normal duties at Miami Beach, Fla.

The necessity for a surface patrol became apparent by the middle of April when large numbers of bergs overran the eastern slope of the Grand Banks and continued their drift toward Track "B". The assignment of *Acushnet* was requested by Commander, International Ice Patrol on 15 April and that ship departed Portland on the 17th. *Acushnet* assumed the duties as Ice Patrol Vessel on 20 April when, at position 42°06′ N. 49°37′ W., it took up the familiar radio call sign NIDK and commenced a search northward up the eastern slope of the Banks.

The *Androscoggin* departed Miami Beach on 28 April and effected relief of *Acushnet* on 4 May. On that date icebergs lay within 40 miles of west bound lane Track "B" and the need for a continuous patrol was obvious. These two cutters maintained the patrol rotating at 17-day intervals until 7 July. From 7–11 July the Oceanographic Vessel USCGC *Evergreen*, (Lt. Comdr. J. H. Bruce, USCG,) which had completed the fourth and last oceanographic survey, did the final patrol duty.

On two brief occasions there was no surface patrol technically present. From 11–13 May the *Androscoggin* was diverted to an assistance case described in the previous section. It is ironic to note that during this same period occurred the only sudden eruption of ice into the effective shipping tracks. Again, from 5–9 June the *Androscoggin* acted as guardship for the iceberg bombing experiments in the vicinity of the Virgin Rocks.

Within the period of surface patrol (20 April–11 July) ice existed in the effective transatlantic shipping tracks during a total of 26 days, and for another 10 days ice lay within 30 miles of the track in current use. Thus, over 44 per cent of the time which the patrol vessels spent on duty, the major steamer lanes were under active ice menace. These figures apply only to the United States-European tracks. The Canadian routes were under constant threat.

It is of equal significance to note that occasions existed, such as from 26 April to 9 May, when the southern limits of ice were constantly obscured by fog. Another instance which demonstrates the importance of shipboard observation and patrol is from 10–26 June when only one aircraft observation flight to the southern and most critical area was successful and that only partially so. Fog prevailed over the areas where the patrol vessels operated for 41 per cent of the time.

During the 1959 season all ships assigned to the Patrol conducted a series of precise tests and measurements to evaluate accurately the performance of radar as a reliable aid in the detection of ice. The results of these studies are presented in a special section of this Bulletin.

The usual routine of a cutter during its patrol was to remain with the southernmost or most hazardous ice known during fog and at night. "Safety" messages were broadcast on 500 Kc/s. as advisable and ships observed on radar to be standing into danger were warned by visual, sound or radio means. During daytime periods of good visibility the cutter searched for unknown or un-relocated ice. Scientific studies were conducted whenever possible.

It often became necessary for the cutter, on orders from Commander, International Ice Patrol, to abandon one berg and proceed to or search for another reported to be in a more critical location. The combined use of aerial observation, the oceanographic survey and the sea temperature program served to assure that the surface patrol was at the most advantageous position.

In addition to its regular patrol cruises each cutter made one short cruise devoted to radar ice detection measurements.

The operations of the patrol cutters is summarized by the statistics presented in Table 1.

Table 1.—Surface Ice Patrol Statistics for the 1959 Ice Season

Patrol dates (actually on station)	Vessel on patrol	Total days at sea	Total miles crused	Number of days standing by ice	Number of days searching area	Percentage of fog	Number of ice warnings and safety messages broadcast
20 April to 4 May	*Acushnet*	23	1,193	8	7	47	108
4 May to 20 May	*Androscoggin*[1]	25	4,166	9	9	21	82
19 May to 5 June	*Acushnet*	20	1,737	13	4	40	127
9 June to 21 June	*Androscoggin*	24	2,993	14	4	56	83
21 June to 7 July	*Acushnet*	23	1,458	16	1	25	173
7 July to 14 July	*Evergreen*	14	1,185	5	3	62	29
	Total for 1959	123	12,732	64	28	41	1,007

[1] Diverted from patrol 11–13 May for search and rescue mission.

AERIAL ICE OBSERVATION

As in past years since 1946, aircraft constituted the primary means of ice observation by the 1959 International Ice Patrol. This season the familiar PB1G (B–17), "Flying Fortress," used in previous years, was no longer present. Age and obsolescence had rendered prohibitive the operating and maintenance expenses of these fine old aircraft.

For this season and to continue in the future, three R5D "Skymaster" aeroplanes were employed for reconnaissance. Such Douglas DC4 aircraft are well known for their excellent operating characteristics. The lack of a bombardier's station in the bow of an R5D, however, made its observational qualities inferior to the B–17, but prior to the 1960 season observation "blisters" will be installed in all Ice Patrol planes to remedy this defect. A photograph of one of the new Ice Patrol aircraft in flight is presented as a frontispiece to this Bulletin.

During the 1959 season 61 patrol flights were conducted. The planes were operated by the U.S. Coast Guard Air Detachment, Argentia, Newfoundland, Comdr. K. R. Goodwin, USCG, and are stationed permanently at the U.S. Naval Station, Argentia.

Between 1 January and the start of the season on 5 March, 13 "preseason" flights were made to establish the limits of ice in its annual southward drift. Again, from the termination of the Patrol at 17 July and through 8 September, 8 postseason reconnaissance flights guarded against an undetected encroachment.

Ice observation flights range between 1,000 and 1,300 miles in total distance. They are usually planned in a series of parallel legs spaced 20–30 miles apart commensurate with visibility conditions to thoroughly search the intended area. Flight altitude is 1,000 ft. but it often becomes necessary to descend to near wave-top level in order to retain surface visibility or identify radar targets as ship or berg. Flying far offshore at such low altitudes is why multiengine aircraft are utilized. Navigation is emphasized on all flights and "fixes" are made every 5 minutes in the ice area by use of the plane's two Loran receiving sets.

Ice observation officers from the staff of Commander, International Ice Patrol accompany all flights.

Monthly flight data for the season are given in Table 2.

Table 2.—Aerial Ice Observation Statistics for the 1959 Ice Season

Month	Number of flights	Number of days on which flights made	Number days good observing weather[1]	Average visual effect-iveness[2]	Maximum number days between flights	Miles flown	Hours flown
				Percent			
March (5-31)	9	9	14	66	3	10,218	66.5
April	14	14	20	54	5	25,663	103.2
May	18	16	18	57	3	19,304	122.8
June	14	13	12	58	1	16,485	106.6
July (1-17)	6	5	9	63	5	7,135	46.9
Total	61	57	73	59.5	5	68,587	446.0

[1] Days on which possible to search visually at least 50% of scouting area with 25-mile spacing between legs of flight plan.

[2] Ratio of area actually searched visually to area of search pattern.

COMMUNICATIONS

Primary radio communications for the International Ice Patrol was conducted by U.S. Coast Guard Radio Station (NIK) at Argentia, Newfoundland. Throughout the season this station broadcast twice daily ice advisory bulletins to shipping commencing at 0048 and 1248 Greenwich mean times. Broadcasts were made simultaneously on 155, 5320 and 8502 kilocycles with a power output of 2 kilowatts. Each bulletin was transmitted twice; first at 15 words per minute and repeated at 25 words per minute.

All broadcasts concluded with the request that all ships in the patrol area report to NIK all ice sighted and sea temperatures and weather conditions every 4 hours. The importance of such reports is highly regarded by Commander, International Ice Patrol. Significance of ice reports is, of course, obvious and it should be here pointed out that the major portion of all ice information collected by Commander International Ice Patrol comes from shipping. From the sea temperature reports are constructed isotherm charts which play an important role in the evaluation of berg reports, prediction of berg drifts and estimating ice deterioration. The response to the program this year was most gratifying. A greater number of sea temperatures were reported than during any previous season in Ice Patrol history. Charts constructed from these reports are included in this Bulletin as figures 1–9.

From all reports collected a plot was maintained of shipping traversing the Ice Patrol area. On this plot the main routes of travel were ascertained and any ship observed standing into dangerous waters due to ice menace was warned by radio.

Merchant ships worked traffic with NIK on 425, 454, 468 or 480 kcs. or their assigned 8 mc. band. NIK transmitted working traffic on 432 or 8650 kcs.

The Ice Patrol vessel played a valuable role as a secondary communications unit. Using the time honored Ice Patrol cutter call sign NIDK, the patrol vessel relayed messages and assisted during periods of peak radio traffic.

The International Ice Patrol communication center at Argentia operated a branch circuit of the U.S. Naval Teletype System. By this landline the ice bulletins were rapidly transmitted to the following agencies:

United States Navy Hydrographic Office, Washington, D.C.
Commandant, U.S. Coast Guard, Washington, D.C.
Commander, Eastern Area, U.S. Coast Guard, New York
Commander, First Coast Guard District, Boston, Mass.
Canadian Department of Transport Ice Central, Halifax, N.S.
Royal Canadian Navy Radio Station, Albro Lake, N.S.
Canadian Naval Commander, Newfoundland Area, St. John's
Canadian Department of Transport, Marine Services, Ottawa
U.S. Military Sea Transportation Service Office, St. Johns
U.S. Naval Fleet Weather Facilities at:
Argentia
Norfolk, Va.
Suitland, Md.

During the 1959 season Ice Patrol communications facilities worked a total of 19,457 radio and 33,039 landline messages. This volume of traffic is 20 percent higher than for any previous year in Ice Patrol records. The statistics concerning ship reports are given by the following table:

Number of ice messages received from vessels	2,452
Number of vessels furnishing ice reports	329
Number of sea surface temperatures reported	12 097
Number of vessels furnishing sea surface temperatures	676
Number of requests for special ice information	206
Total number of vessels worked (not including relays)	786

The percentage distribution of reporting vessels by nationality was as follows:

Nationality	Percent of Total	Nationality	Percent of Total
Great Britain	26	Italy	3
United States	17	France	2
Germany	12	Denmark	2
Norway	9	Panama	2
Sweden	7	Greece	2
Liberia	5	Canada	2
Netherlands	5	Others (20 nations)	6

ICE CONDITIONS 1959

JANUARY

The beginning of the year found the Newfoundland area in the grip of a severe winter. Since the middle of December the Gulf and River St. Lawrence had been ice bound. On 27 December an aircraft had reported the Strait of Belle Isle blocked with heavy pack ice.

By 15 January heavy sea ice extended northward along the Newfoundland and Labrador coasts from latitude 51° N. and eastward to longitude 53°40′ W. On 16 January fields of loose ice were reported drifting seaward in Cabot Strait reaching as far out as 46° N. 57° W.

Throughout the month patches of block and brash ice hampered coastwise shipping along Newfoundland. This was all local ice due to the extremely cold winter and was not of the Arctic pack.

No icebergs were reported south of latitude 54° N. during the month.

FEBRUARY

The month of February was marked by extremely heavy local pack ice conditions along the Newfoundland coast. By the end of the first week a heavy ice field extended eastward from the Newfoundland coast along the 48th Parallel to longitude 50° W. thence turning north-northwestward. Small fields and patches of loose pack ice existed all around the Avalon Peninsula of Newfoundland. For the first time in many years shipping was hampered in Placentia Bay, normally an ice-free access to Newfoundland.

Prevailing westerly winds prevented a blockade of ice to the approaches to St. John's harbor and shipping was able to proceed into the harbor throughout the month. Several cases of hull and propeller damage were reported mostly in the off lying patches and fields driven eastward by the wind.

Throughout the latter half of February the boundary of the heavy pack ice remained very nearly the same as the first week, the only significant change being a southeastward extrusion during the last week to about latitude 47°50′ N. longitude 48°40′ W. evidencing a transport by the Labrador Current.

Fields of loose sea ice persisted around the coast of the Avalon Peninsula through the end of the month, diminishing somewhat, however, the latter half. The greatest southward penetration occurred on 17 February when a field of ice of nine-tenths ice cover of the sea surface extended from Cape Race southward to latitude 46°15′ N.

Ice in the Cabot Strait and the Gulf of St. Lawrence became heavier as the month wore on. No clearly established seaward limits can be stated as the ice consisted chiefly of rapidly shifting patches and small fields of block and brash. However, no ice was reported during the month south of latitude 44°50′ N. or east of longitude 57° W. The center of the Strait was probably navigable throughout the month, but all harbors and bays within the Gulf were tightly closed and often large Canadian and United States icebreakers were brought to a standstill.

The first of the Arctic ice was reported on 26 February by Belle Isle Radio which stated that 8 miles to the north had been sighted " . . . the edge of the Arctic ice pack with many icebergs in pack."

Except for vessels attempting to use Canadian Steamship Track "F" (via Cape Race) and Newfoundland shipping there was no ice threat to any transatlantic shipping lanes in February.

MARCH

March witnessed the peak of the Cabot Strait and Grand Banks field ice and the beginning of the iceberg menace to the shipping tracks. During the first 2 weeks, the sea ice off eastern Newfoundland resembled a huge boot with the heel at St. John's and the toe pointing eastward to longitude 47°30′ W. and the leg extending northward between longitude 50° W. and the Newfoundland coast. All the ice south of latitude 50° N. was non-Arctic in origin.

Ice to the east of the Avalon Peninsula eased somewhat the first week of March. However, during the second week and under the influence of strong northerly winds sea ice again was carried southward past Cape Race and reached its greatest extent of the year on 14 March when it protruded southward from Cape Race and Cape Pine to about latitude 46° N. This ice quickly deteriorated so that by 21 March no more was reported south of Cape Race. By the 24th of the month the coast of the Avalon Peninsula was free south of Cape St. Francis and remained so.

To the eastward, over the northern slope of the Grand Banks, field ice persisted changing little during the second half of March. Throughout this period it extended from the Newfoundland coast north of latitutde 48° N. outward along the 100-fathom isobath to about longitude 47° W. (see figure 10). The peak of the field ice over the Grand Banks for the year was reached between 15–22 March and represented about average conditions.

The Gulf of St. Lawrence, on the other hand, was experiencing an exceptionally heavy season. During the first week in March, Cabot Strait was bridged with ice and the seaward limits became definite and remained throughout the month at approximately a line extending from Cape Ray, Newfoundland, to St. Pierre to about 45° N. 58° W. thence recurving northward to Cape Breton Island. The greatest southward drift of the year was reported on 5 March when the ice edge was sighted near Sable Island, and the farthest east were patches and strings of loose ice at 46° N. 54°40′ W. on 27–28 March. By the end of the month, though, the seaward limits were receding and the western reaches of the Gulf between Cape Gaspé and Anticosti Island were reported open. But the "ice bridge" between Cape Breton Island and Cape Ray caused by the piling up of the huge amount of outward drifting ice remained fast. However, at the month's end, in the attempt to open the passage to Montreal several ships were working through the Strait and the Canadian Department of Transport had commenced icebreaker service and the Ice Central at Halifax, Nova Scotia, was providing ice forecasting bulletins.

The first icebergs to approach the Grand Banks area were sighted by the U.S. Coast Guard Cutter *Humboldt* en route to Ocean Station *Bravo* from Boston, Massachusetts. Five large bergs were reported between latitudes 51°30′ N. and 53° N. at about longitude 48°40′ W. These bergs were considerably offshore, free of the pack ice and not the same bergs reported by Belle Isle Radio on 26 February. The fact that they were not in the pack accounts for their first arrival. Prevailing westerly winds throughout February had placed them eastward of the axis of the Labrador Current where they experienced a continued eastward drift. This group of few bergs, perhaps numbering less than ten, was not followed by any replacements and by the middle of March all had melted in the general area of 50° N. and 46° W. Thereafter bergs were from inside the pack and in their southward approach to latitude 50° N. were rarely east of the 50th meridian.

Prevailing westerly winds, nevertheless, had carried the ice edge and accompanying main body of icebergs a greater than usual distance offshore. By 8–9 March the van of the berg movement was at about 50° N. 50° W. Large concentrations of bergs were still being reported at Belle Isle but, as yet, almost none had been sighted along the Newfoundland coast.

The first bergs to drift across the 48th parallel did so on about 24 March. At this time there was a well defined limit of iceberg positions which resembled a sharp wedge pointing southeastward and bounded by a line from Belle Isle to 48° N. 48°30′ W. to 53° N. 51° W. Within this wedge were several hundred large icebergs and almost none without. At the month's end this wedge was still in evidence but with bergs drifting from the apex. Several continued to the southeast and east but most curved southward and followed just seaward of the 100-fathom isobath which corresponded to the axis of the Labrador Current (see fig. 44).

Ice reported during March is shown on figure 10 and the drift of several bergs in March is plotted on figure 15. The southernmost berg to be reported in March was by the SS *Statensingel* (Neth.) on 31 March at 46°50′ N. 47°15′ W. Altogether it is estimated that 14 icebergs drifted south across latitude 48° N. during the month.

APRIL

At the beginning of April sea ice over the Grand Banks was bounded by a line from 48° N. 53° W. to 47°20′ N. 47°30′ W. to about 52° N. 52°30′ W. South of latitude 49° N. the ice was in fields, patches and strings of small floes and blocks of concentrations varying between one-tenth and five-tenths ice cover of the sea surface. North of latitude 49° N. the concentrations became heavier. At no time during the remainder of the month or year did pack ice penetrate any farther south than at this time.

Through the first week in April, a rapid recession of the ice limits gave the impression of an abrupt and early ending. The boundary on 9 April lay roughly along latitude 50° N. between longitude 54° W. and 50° W. It seems, however, that most of the ice previously to the south had been chiefly non-Arctic winter and bay ice and that this new boundary was the southern extremity of older, heavy Arctic ice which each year makes its annual visitation into these waters. The boundary was again on 11 April found to be moving southward and this trend continued until the 23d of April when it reached its southernmost advance at the 48th parallel between longitude 52° W. and 48° W. (see fig. 11).

During the last week in April destruction of the field ice due to spring warming was in evidence (note the 32° isotherm on figs. 3–5) and the pack edge showed positive signs of retreating. At the month's end the ice boundary extended no farther offshore than longitude 50° W. and all sea ice south of latitude 50° N. was in rapid deterioration.

Ice conditions during the first week in April remained severe in Cabot Strait and the eastern Gulf of St. Lawrence. Ten-tenths ice cover continued from Cape North, Nova Scotia, across to Cape Ray, Newfoundland. The seaward limit extended to about a line from 45° N. 58°30′ W. to St. Pierre. In the Gulf of St. Lawrence there was open water west of the Magdalen Islands and Bird Rocks which was tempting bait for ships to try a passage through Cabot Strait. Traffic commenced and successful passages were made with the help of routing instructions by the Ice Forecasting Central at Halifax and Canadian icebreakers.

By the middle of April conditions had eased considerably in Cabot Strait and lanes of open water were appearing through the Strait. Heavy ice persisted, however, between Cape Ray, Newfoundland, and the Magdalen Islands and shipping was routed close to Cape St. Lawrence, Nova Scotia, and to south and west of the Magdalens until about 20 April. At that time the seaward ice limits had shrunk to a line from Cape Breton to Cape Ray and consisted of loose strings and patches of rapidly rotting winter ice. Open water lay west of a line from St. Paul Island to Bird Rocks and the normal steamer track was in almost full use. However, the west coast of Newfoundland including the ports of Stephenville and Corner Brook remained icebound.

On 24 April only a small patch of loose ice remained in the Cape Breton area. Cabot Strait and the main body of the Gulf were ice free after a notably heavy season. Ice continued to block St. Georges Bay, Newfoundland, and the northeast arm of the Gulf of St. Lawrence throughout April.

During the first week in April, the several icebergs which led the movement southward along the eastern slope of the Grand Banks appeared to have been an isolated group and the main body of bergs was still within the field ice limits north of 49° Latitude. This advance group melted mostly within the area between 45°–46° N. latitude with the southernmost survivors being last reported on 12 April by the SS *Media* (Brit.) at 44°07′ N. 48°39′ W. No more bergs reappeared this far south until 20 April although a growler was reported on 19 April near 42°20′ N. 49°18′ W. by M/S *Alstern* (Swed.) and SS *Assyria* (Brit.) but which could not be relocated the following day by an Ice Patrol search plane.

The period 1–15 April witnessed another group of bergs, also early arrivals, which drifted to the eastward between latitude 47°30′ N. and 49° N. (see fig. 11). Some of the drifts are plotted on figure 15 and are noteworthy in that they often exceeded 30 miles per day, unusual for this region. The location, however, is a commonly observed feature during the early part of the iceberg season. A possible exception is a rapidly melting large growler sighted by SS *Beavercove* (Brit.) 14 April at position 48° N. 42°18′ W. This position is farther to the east than any piece of glacial ice has been sighted in this latitude in over 27 years. No more bergs this season north of Flemish Cap followed a path to the eastward.

Aerial Ice Reconnaissance on 9 April showed the main body of bergs was just reaching latitude 49° N. and still concentrated well offshore. One lone, large berg was sighted this day near Cape Freels, Newfoundland, at 49°20′ N. 52°55′ W. Except perhaps for the Strait of Belle Isle region, this was the first berg to arrive at the Newfoundland coast. It was, however, to be followed by almost record numbers more.

By 20 April the pattern for the year was clear. Large numbers of bergs had crossed the 48th Parallel and was drifting southward along the eastern slope of the Grand Banks with the leaders at about latitude 44° N. North of 49° latitude large concentrations of bergs were arriving at and coming south along the east coast of Newfoundland. On this date a surface Ice Patrol was established at the southernmost iceberg limits and was maintained throughout the remainder of the season. The arrival of the berg multitude over the Grand Banks corresponded closely with the advance of the Arctic sea ice pack described in the second paragraph of the discussion for this month. The last week found a relatively stable condition over the southeastern slope of the Banks. Bergs carried southward in the cold and narrow stream of the Labrador Current would either escape to the east between latitude 46° N. and 43° N. and be carried northward again to a quick destruction by the warm waters of the Atlantic Current, or else those surviving a drift to the Tail-of-the-Bank would dissipate in a mixed water eddy centered at about 43° N. 48°40′ W. (see figs. 15 and 44). Other bergs had penetrated and grounded over most of the northeastern half of the Grand Banks but with none encroaching beyond a line between Cape Race and the Tail-of-the-Bank. Along the Newfoundland east coast, however, conditions were far from steady. Greater numbers of bergs were appearing daily hazarding coastwise and St. John's shipping.

Approximately 266 bergs drifted across the 48th parallel during April. This is the fifth highest on record since 1900 and the greatest since 1932. The average figure is 95.

East of Newfoundland a rapid recession of pack ice occurred during the first week in May so that by the 8th only rotting patches remained south of latitude 49° N. and this was restricted to Trinity and Bonavista Bays. Moderate to heavy field ice remained north of Cape Freels but extended no further east than longitude 54° W. except for a belt of heavy pack protruding eastward along the 50th parallel as far as longitude 51°40′ W. This easterly belt appears to be common feature to this region especially during the period when the ice limit is retreating. Reference can be made to figures 5–8 in Bulletin No. 44 of this series (1958 season) where a similar pattern is presented. It is doubtless related to an eastward diversion of the inshore portion of the Labrador Current at the shelf around the Cape Freels-Funk Island-Fogo Island region.

Ice in the northeast arm of the Gulf of St. Lawrence also receded rapidly during the first week in May. By the 9th all Newfoundland west coast ports south of latitude 50° N. were open, and by the 20th the entire Gulf and western approaches to the Strait of Belle Isle was clear.

On 20 May aerial observation showed that field ice south of Belle Isle along the east coast had shrunk into a coastal zone lying north of latitude 50° N. and west of longitude 55° W. Northward of Belle Isle the pack remained heavy, its boundary extending approximately northeast from Belle Isle to as far seaward as longitude 52° W.

A severe cyclonic storm 22–25 May brought strong northerly winds which backed to the west. The result of this storm was that the ice in the Notre Dame and White Bays of Newfoundland was driven seaward and again drifted southeasterly past Cape Freels and reached its greatest extent about 28 May at position 49° N. 52°40′ W. Greater consequence of the blow, however, was a sudden southward movement of field ice off the Labrador Coast from about latitude 52°30′ N. on 22 May to 51° N. on 28 May. The Strait of Belle Isle, Newfoundland and southern Labrador coasts had been cleared of ice at the month's end, but large field lay offshore out of sight of the coastal stations whose reports were conveying ice free impressions.

Iceberg drifts the first week in May remained much as they had been in the latter part of April. The northern slope of the Banks continued to fill up with bergs and at the week's end many were reported to be rounding Cape Race and drifting to the westward. About a dozen bergs drifted south of the 43d parallel during this week and for the most part remained in the vicinity of the Tail-of-the-Bank. At least three rounded the Bank and commenced a westward drift on the opposite slope. Such a drift is relatively common and in some years the majority of bergs arriving at the southern extremity have recurved to the westward. But these few were the only such occurrences in 1959 and all other bergs reaching the southeastern slope this season drifted to the eastward.

From 7–10 May one exceptionally large berg, about 275 feet high and 1,000 feet long, was observed to be grounded in position 42°50′ N. 50° W. at a depth of 90 fathoms. The inactivity of several other large bergs nearby strongly suggests that they too may have been grounded.

During the period 10–12 May an intense cyclonic storm swept the Grand Banks with northwesterly winds of Force 11 and greater. This disturbance had a profound effect upon the iceberg distribution over the southern portion of the Grand Banks. The Ice Patrol Cutter standing guard at the southern limits of the ice near 42°40′ N. 50° W. was diverted on a rescue mission from 10–13 May. On 12 May a large iceberg, subsequently identified as the previously described grounded one, was reported by SS *Esso Camden* (Pan.) and SS *Hillcrest* (Brit.) to be near 41°25′ N. 49° W. This location was 90 miles south-southeast of its position on 10 May and represents a minimum drift of 60 miles per day. The following day, 13 May, an Ice Patrol aircraft relocated this berg at 59 miles farther SSE in 40°40′ N. 48°10′ W. The Ice Patrol Cutter returned from its assistance mission that day and remained with this berg through its life span to where it melted at position 40°05′ N. 48°20′ W. on 21 May. This remarkable drift is shown on figure 15 and is noteworthy for two reasons: first, it represents the southernmost penetration of ice during 1959 and second, it is only the berg during the year drifting southeastward which failed to recurve to the northward with the Atlantic Current. This latter occurrence is perhaps due to the berg's being driven through and across a northern branch of the Atlantic Current and into slower moving water. Previous oceanographic sections extending far southward made by the Ice Patrol oceanographic vessel such as the IGY section 23 May–5 June 1958 (fig. 21 of Bulletin No. 44 of this series) have indicated that the Atlantic Current may exist in two branches with a sluggish zone between.

The last described berg drift was not the only extraordinary effect of the 10–13 May storm. Two other bergs were sighted 13 May near 40°40′ N. 48°10′ W. and a third in position 41°45′ N. 48°15′ W. A lone berg was found to the west on 12 May by SS *Neptune* (Lib.) in 41°53′ N. 52°14′ W. and again on 13 May by SS *Tarakan* (Neth.) in 42°20′ N. 52°20′ W. Last located by Ice Patrol aircraft the next day in position 42° N. 52° W. it had recurved to the east and was well under the destructive influence of the Atlantic Current. The drift of this berg is also plotted on figure 15.

Prior to the storm, on 9 May, bergs over the Grand Banks had encroached to about a line from Cape Pine, Newfoundland, to 44° N. 50° W. but on 14 May this line now approximated the 100-fathom contour of the southwestern slope. This represents an average advance of about 65 miles over the entire Grand Banks. A good estimate of the change wrought can be had by contrasting the April and May Ice Charts, figures 11 and 12. The difference in the southern and southwestern iceberg limits was brought about principally by this tempest.

By 20 May, however, most of the effects of the extreme drifts had disappeared except for the large berg sighted 13 May in 41°45′ N. 48°15′ W.

and relocated 19 May by SS *Bellatrix* (Ital.) near 41°42′ N. 47°13′ W. This berg drifted northward and melted on 24 May near position 44°20′ N. 46°45′ W. (see fig. 15). The wind had swept the southeastern slope clear and it was not until the 22d that bergs, newly arriving, once again crossed the 45th parallel.

Icebergs persisted across the western slope of the Banks through 25 May and by then a more normal pattern had reestablished itself. At that time the northern slope was rather well populated from Cape Pine eastward and bergs extended southward along the eastern slope as far as latitude 43° N. Only a handfull was sprinkled over the remainder of the Banks. Interesting among these were two bergs sighted near St. Pierre on 25 May by SS *Cleopatra* (Ger.).

To give some indication of the hordes of icebergs now arriving at the Newfoundland coast, 200 bergs were sighted within a 10-mile radius of Cape Bonavista and more bergs were sighted in Trinity and Conception Bays than at any time in the recollection of many local residents.

The month's end found the southernmost berg at 42°50′ N. 48'40′ W. although a report of a berg and growler on 30 May in position 41°15′ N. 47°09′ W. by SS *Rhenania* stayed unconfirmed after an air and ship search on 31 May–1 June. Several bergs remained grounded in the area near 45°45′ N. 54° W. but most lay east of longitude 54°30′ W. and north of lat. 46° N.

During May a total of about 180 bergs drifted south of latitude 48° N. and of these 22 crossed the 43d parallel.

JUNE

The first week in June marked the end of the field ice south of latitude 50° N. and in Newfoundland coastal waters. A small field of rotting brash ice sighted 3 June between Cape Bonavista and Cape Freels was gone by the 5th. As previously stated, however, a large belt of pack ice extended southward from off Labrador to about latitude 51°30′ N. These fields of 4–7 tenths ice cover were well offshore and out of visual range of coastal reporting stations in northern Newfoundland and along the Strait of Belle Isle which remained henceforth ice free. This ice actually advanced through the 13th of the month when, at its southernmost extent, it resembled a southward pointing spike averaging 75 miles in width and the extremity at 50°15′ N. 50° W. The inshore edge lay about 30 miles east of Belle Isle. Active deterioration had reduced the concentration but shipping which by now was attempting to use the Strait of Belle Isle was sorely hampered until around 20 June when on that date sea ice was no longer a factor for consideration by transatlantic shipping.

Icebergs during June drifting southward along the eastern slope of the Grand Banks achieved a near steady state pattern of conditions and would invariably recurve to the northeast between latitudes 46° N. and 43° N. The southernmost occurrence was on 15 June in position 42°05′ N.

48°25′ W. And the only significant drift was evidenced on 22 June when USS *Camp* (USN) reported a berg at 44° N. 43°36′ W. A radar target on the 24th reported by the SS *Gripsholm* (Swed.) in position 44°03′ N. 42°56′ W. possibly marked the last of this rare survivor the eastward drift of which has been seldom duplicated. Both of the aforementioned drifts described in this paragraph are shown by figure 15.

Throughout June bergs achieved interesting drifts in the western reaches of the Ice Patrol area. During the first 3 weeks many bergs worked westward between Cape Race and latitude 46° N. The majority of these would ground and be destroyed on the shoals south of the Avalon Peninsula. However, several continued the journey reaching almost to the 56th meridian and others entered Placentia Bay where they would always curve northward toward the head of the bay (see fig. 15). From the 20th of June and continuing into the first week in July, bergs were constantly visible from the Headquarters of the Ice Patrol at the U.S. Naval Station at Argentia on the shore of Placentia Bay. This was the first time within the memory of many local inhabitants that such an event had occurred.

The latter part of June saw a relaxation in the numbers of bergs arriving at the Grand Banks and the rate of deterioration became greatly increased. By the end of June only three bergs remained in the Cape Race area whereas at the beginning the figure was nearer to a hundred. Except for grounded bergs along the Newfoundland coast, there existed but about 20 icebergs south of latitude 48° N. over the entire Grand Banks regions. Most of these were to the eastward in the main branch of the Labrador Current.

A great number of bergs estimated at 186 drifted southward across the 48th parallel in June. Most of these were close inshore and grounded along the northern slope of the Grand Banks and the Newfoundland coast. The arrivals occurred mostly in the early part of June and represent quite properly a southward transport during May. This for June, however, is the third highest since 1900 and contrasts with the average figure of 68.

JULY

The southernmost ice for July melted on the first day of the month in position 42°53′ N. 48°08′ W. This berg had been drifting in an eddy just to the east of the Tail-of-the-Bank and is shown on figure 15.

All other bergs present on the southeastern slope at the beginning of the month worked their way east out of the Labrador Current between latitudes 45° N. and 44° N. and melted without achieving any significant drift. By the middle of the month only three bergs were known to be in the main branch of the Labrador Crurent south of latitude 48° N. Of these only one attained a drift southward along the eastern slope and was last reported by an aircraft on 22 July in 45°32′ N. 48°07′ W. No other bergs were reported in the eastern part of the Grand Banks below latitude 48° N. subsequently this month.

The disintegration of bergs over the northern slope of the Banks and in Newfoundland waters markedly accelerated in July even though a small number continued to arrive from the north during the first three weeks. At the middle of the month most of the known bergs were west of longitude 51° W. and warming sea temperatures assured their quick destruction.

By the end of the month only two bergs were reported to be south of latitude 48° N. Both of these were grounded in positions 46°45′ N. 52°45′ W. and 47°27′ N. 51°50′ W. and remained near these locations until melting early in August.

Ships using transatlantic Track "G" through the Strait of Belle Isle reported high numbers of bergs throughout the month on this track all the way from the Strait to the 1,000-fathom isobath. The easternmost of these were bergs reported 15 July in position 52° N. 48°30′ W. by SS *Bertha Entz* and 21 July in 52°25′ N. 50°14′ W. by SS *Asia* (Brit.). At the month's end, however, an abatement in the number of bergs being reported in this area was noticeable.

Ice reports received during July are shown on figure 14. Forty three new bergs drifted south of 48° N. latitude during the month and none reached as far as the 43rd parallel.

AUGUST

No icebergs were reported south of latitude 48° N. during August except the previously described grounded bergs near the Avalon Peninsula. These bergs melted by the middle of August.

Several bergs were reported 4–6 August and again on 25 August in the general area of 49°30′ N. 50° W. All reports indicated that these bergs were drifting more eastward in their southward approach.

Bergs continued to be reported in the approaches to the Strait of Belle Isle in greater numbers and farther offshore than is common for August. The easternmost sighting was by the SS *Flying Spray* (U. S.) on 13 August which reported two bergs near 52°15′ N. 49°50′ W. on 13 August. The SS *Skogholm* (Swed.) reported several large bergs in the same general area on 31 August.

SEPTEMBER

No bergs were sighted south of latitude 50° N. during the month. Reports continued from ships using the Strait of Belle Isle, and the number of bergs throughout this area still appeared to be greater than normal. Bergs were sighted from within the Strait out to position 52°15′ N. 50°15′ W. where M/V *Portrindex* reported a large berg on 22 September.

OCTOBER

Increased berg activity made October an unusual month. A small berg was reported by aircraft on 3 October in 48°34′ N. 51°10′ W. along with several others about 60 miles to the north. From 24–30 October more bergs were making an appearance in this area and the southernmost was reported by SS *Manchester Prospector* (Brit.) on 30 October in 48°26′ N. 48°30′ W.

The indicated eastward movement of these icebergs makes it unlikely that any crossed south of the 48th parallel. Drifts to the eastward were apparent when a berg was reported at 51°19′ N. 48°03′ W. on 9 October and another on 11 October at 50°01′ N. 48°01′ W.

It is most unusual to note that there was no cessation of berg reports from the approaches to the Strait of Belle Isle as is usually expected during this season of the year.

NOVEMBER

November continued to be similar to October in berg distribution and reports. Two large bergs sighted on the 5th at 48°16′ N. 48°06′ W. by SS *Parthia* (Brit.) had been reduced to one medium berg when relocated by aircraft on the 10th at 48°06′ N. 47°27′ W. It seems certain that this berg drifted south of latitude 48° N. but not far beyond.

A similar occurrence was repeated when a berg reported on 13 November at 48°18′ N. 49°54′ W. was again reported the 16th by the *Parthia* at 48°08′ N. 48°36′ W. This berg too must be presumed to have reached a position south of the 48th parallel before melting.

By the end of November the number of bergs reported in the Belle Isle area had abated to a more seasonable normal.

The two bergs drifting south of 48° latitude this month constitute a most unusual occurrence.

DECEMBER

Trends established in November continued in December as two bergs were sighted in the Labrador Current 22–26 December. On 27 December a U.S. Naval aircraft reported a berg near 46°42′ N. 48°05′ W. but a search plane the following day failed to locate it. It is entirely possible that this berg could have been the same as a large berg last reported 22 December at 48°43′ N. 49°20′ W. by SS *Vretaholm* (Swed.). Such drifts averaging 24 miles per day are quite common during the ice season. A berg having a similar direction of drift was reported on 25 December by SS *Silver Hand* (Brit.) in 49°21′ N. 49°15′ W. and again the next day by SS *Largarfoss* (Ice.) in new position 49°00′ N. 49°04′ W. In view of this drift and other activity the southerly report of 27 December cannot be discredited entirely.

Another unusual report was on 29 December when M/S *Minnesota* (Swed.) sighted a berg and growler close by Cape Race. This is all the more interesting since its drift by necessity took it through a dense Newfoundland coastwise shipping area and past the port of St. John's before it was reported.

Continuing into the first week in January the berg near Cape Race on 29 December was relocated on 3 January at 45°50′ N. 52°35′ W. Two bergs also were sighted that day at 45°30′ N. 49°15′ W. and 45°45′ N. 48° W. These reports make it probable that at least three bergs arrived south of latitude 48° N. in December. Such berg activity this month is most unusual but seems related to the abnormal occurrence of icebergs off northern Newfoundland in October and November.

ICEBERG DRIFTS 1959

On Figure 15 are plotted 29 selected drift tracks of icebergs observed during the ice season. These drifts were chosen as neither the largest bergs nor the most extreme drifts, but because conditions permitted the positive identification from one sighting to the next. From several reports received of the same berg during a day the one thought most reliable or the mean position was used.

UNUSUAL ICE SIGHTINGS 1959

Though the International Ice Patrol area of operations is limited to the vicinity of the Grand Banks of Newfoundland, it maintains an interest in ice information and sightings the world over. Mariners and other interested agencies are invited to communicate with Commander, Internationl Ice Patrol in a discussion of sea ice and iceberg conditions.

The following table presents a listing of unusual ice sightings in the North Atlantic Ocean received by the Ice Patrol during 1959. By "unusual" is meant ice reported to be outside the commonly accepted extreme limits appearing in the United States Navy Hydrographic Office Ice Atlas of the Northern Hemisphere and on pilot charts.

Date	Ship	North latitude	West longitude	Description
14 April	SS *Beavercove*	48°	42°18′W.	Large growler.
13 May	SS *Tarakan*	42°20′N.	52°20′W.	Large berg.
21 May	USCGC *Androscoggin* (Ice Patrol cutter)	40°05′N.	48°20′W.	Small berg.
22 June	USS *Camp*	44°00′N.	43°36′W.	Berg.
24 June	SS *Gripsholm*	44°03′N.	42°56′W.	Radar target probable berg (same as berg reported 22 June).
13 Nov	M V *Hermodur*	57°09′N.	36°33′W.	Berg.
14 Nov	SS *Mormacrio*	57°34′N.	42°36′W.	Berg.
14 Dec	M V *Disco*	58°03′N.	24°20′W.	Large ice field.
15 Dec	SS *Mormacrio*	57°47′N.	38°51′W.	Berg & growler.
Do.	do	58°12′N.	38°40′W.	Two large bergs.
Do.	do	58°28′N.	37°36′W.	Very large berg.
28 Dec	M V *Baden*	55°45′N.	42°05′W.	Berg.
31 Dec	USCG *Casco* (OSV *Bravo*)	56°30′N.	51°03′W.	Growler.
Do.	do	56°30′N.	50°48′W.	Berg.

ICEBERG DEMOLITION EXPERIMENTS 1959

The 1959 season marked a renewed activity by the International Ice Patrol toward a means of artificially inducing or accelerating the destruction of an iceberg through disintegration or melting. Since its be-

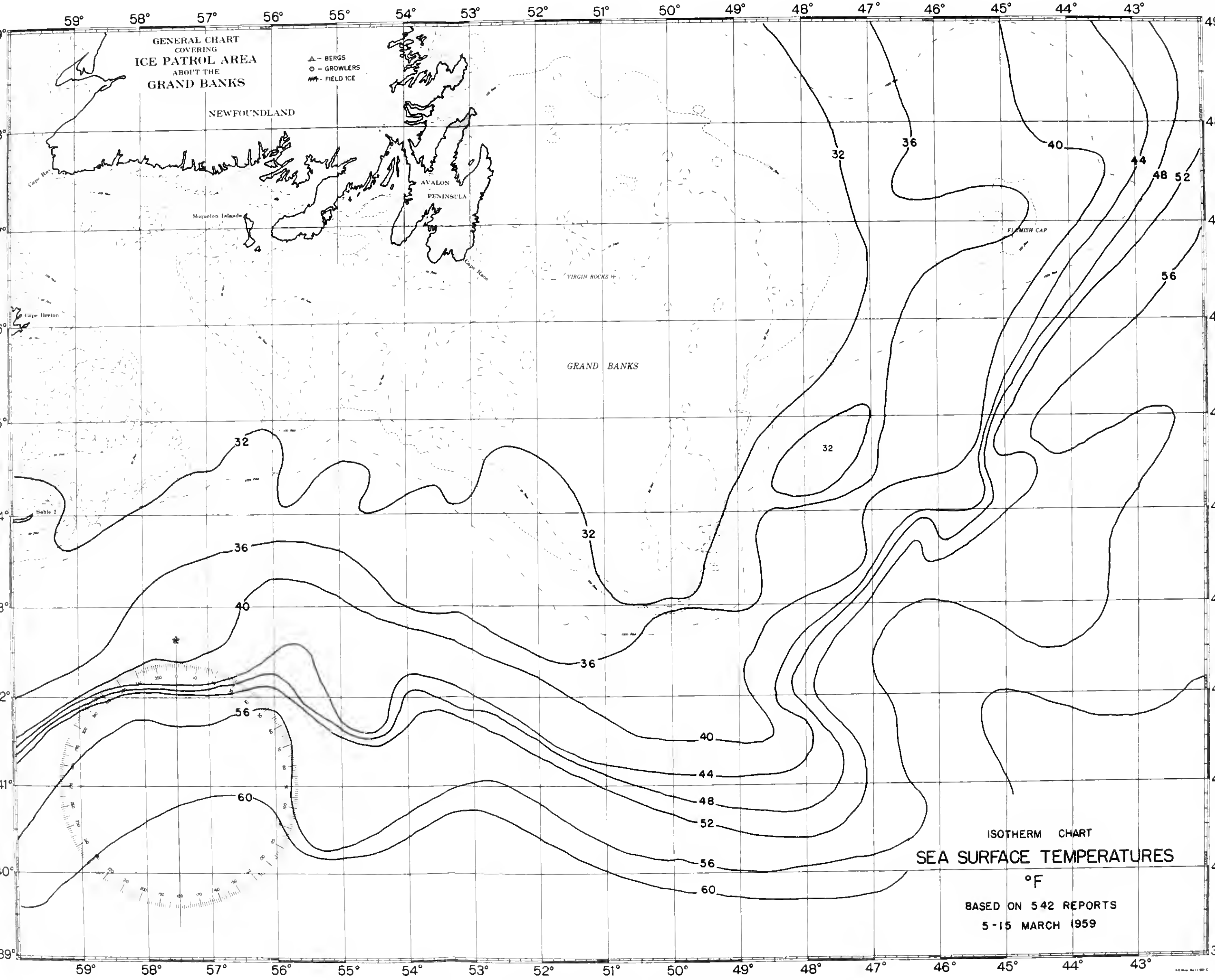

FIGURE 1.—Surface isotherms for the period 5–15 March 1959.

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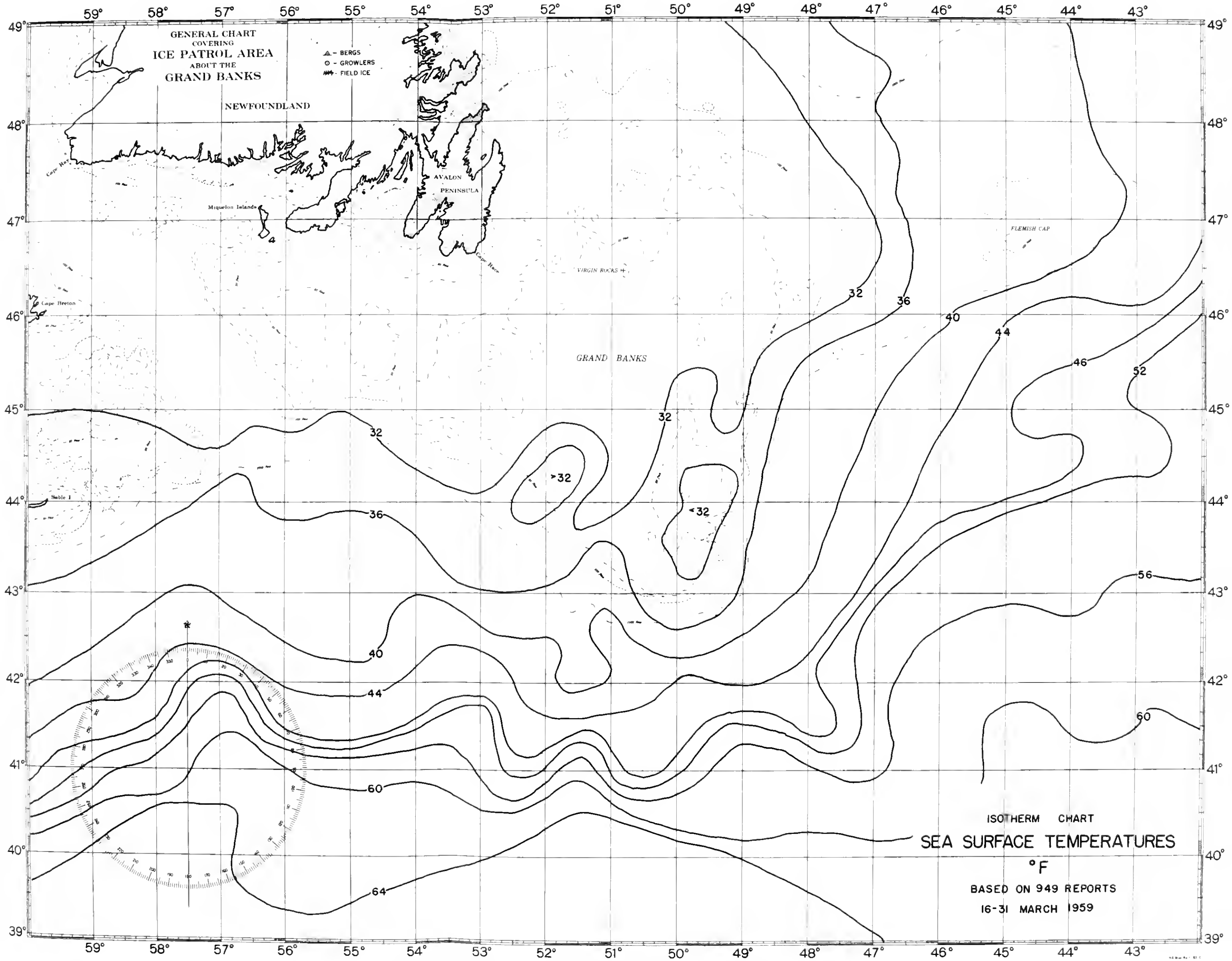

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FIGURE 2.—Surface isotherms for the period 16–31 March 1959.

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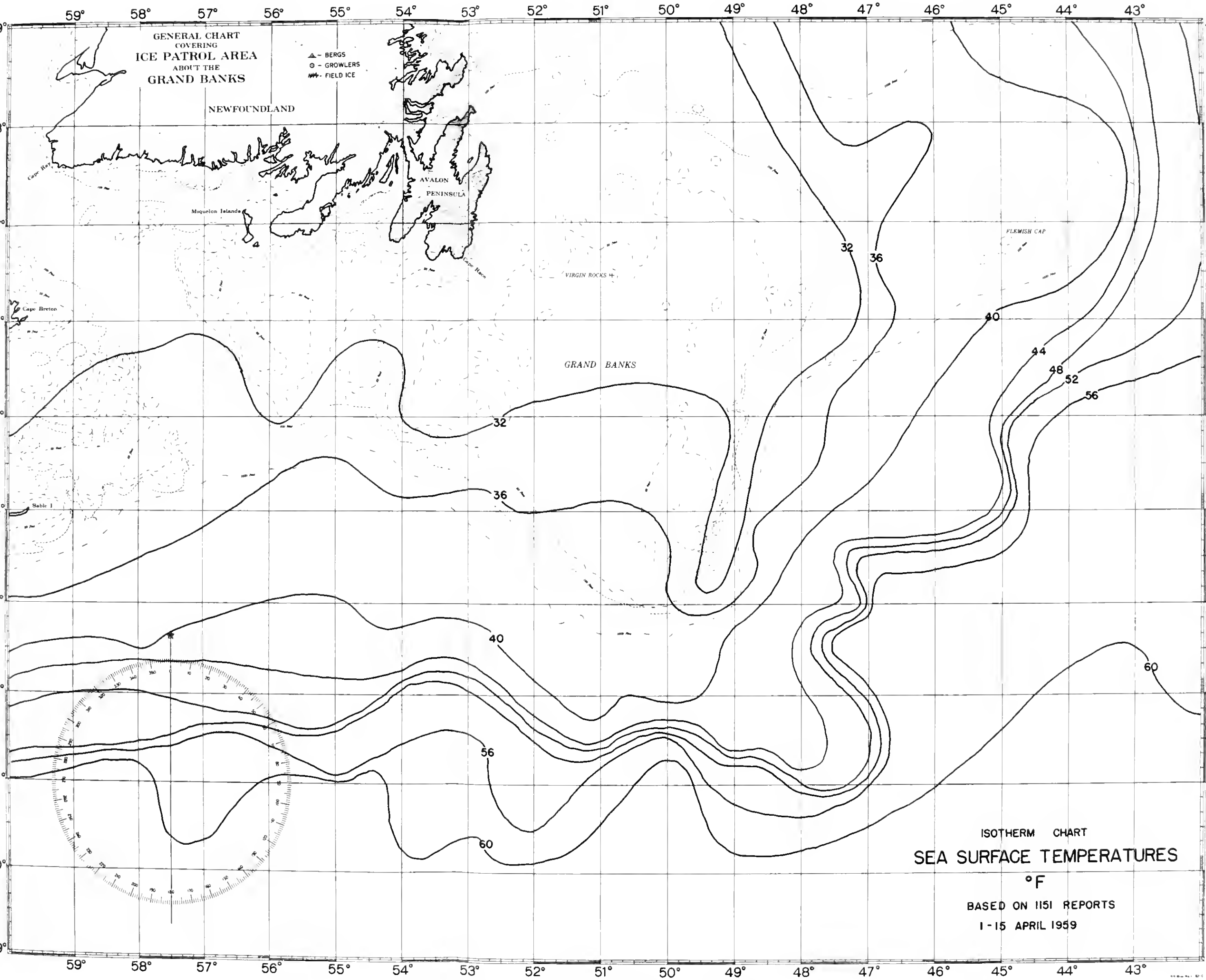

FIGURE 3.—Surface isotherms for the period 1–15 April 1959.

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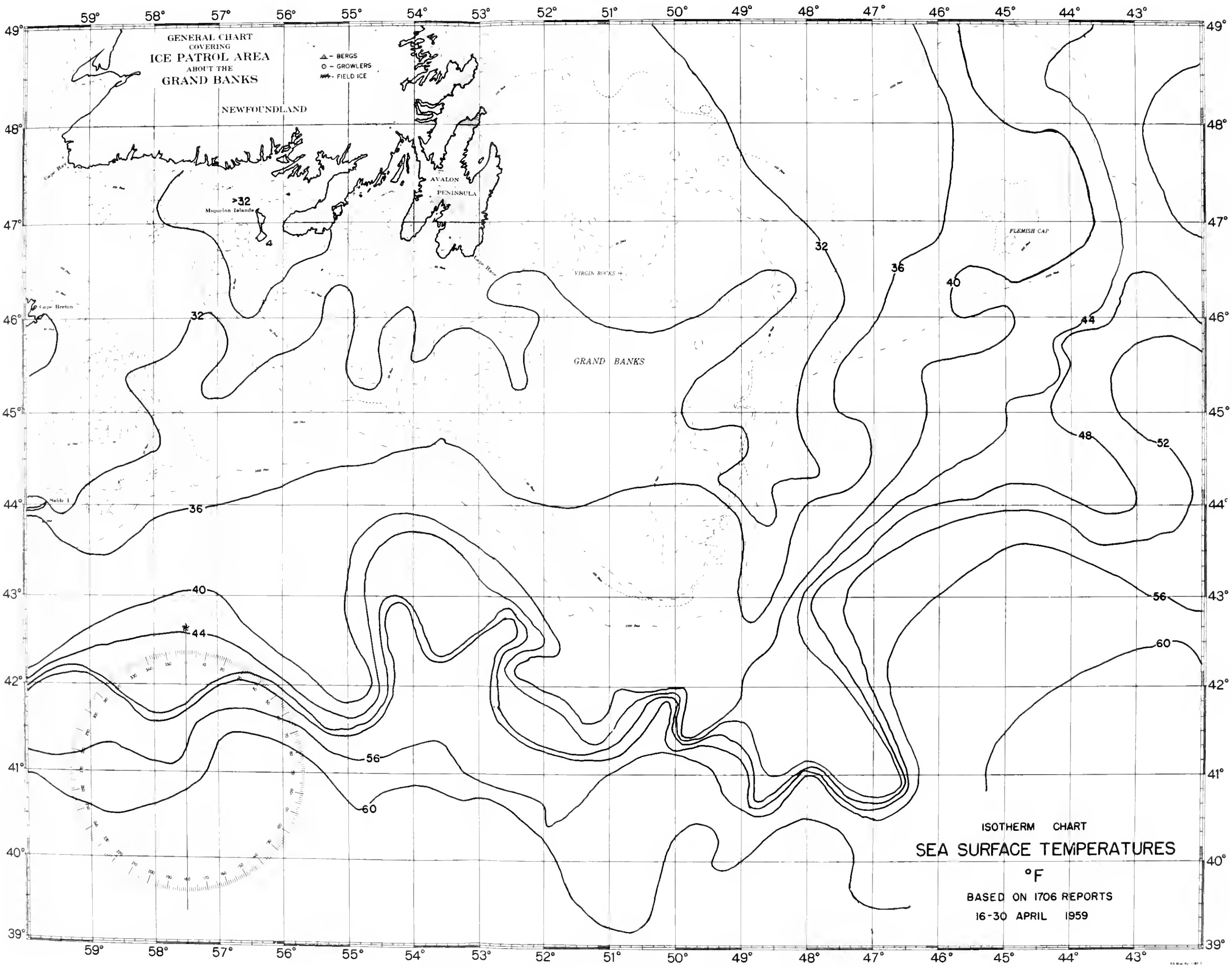

FIGURE 4.—Surface isotherms for the period 16–30 April 1959.

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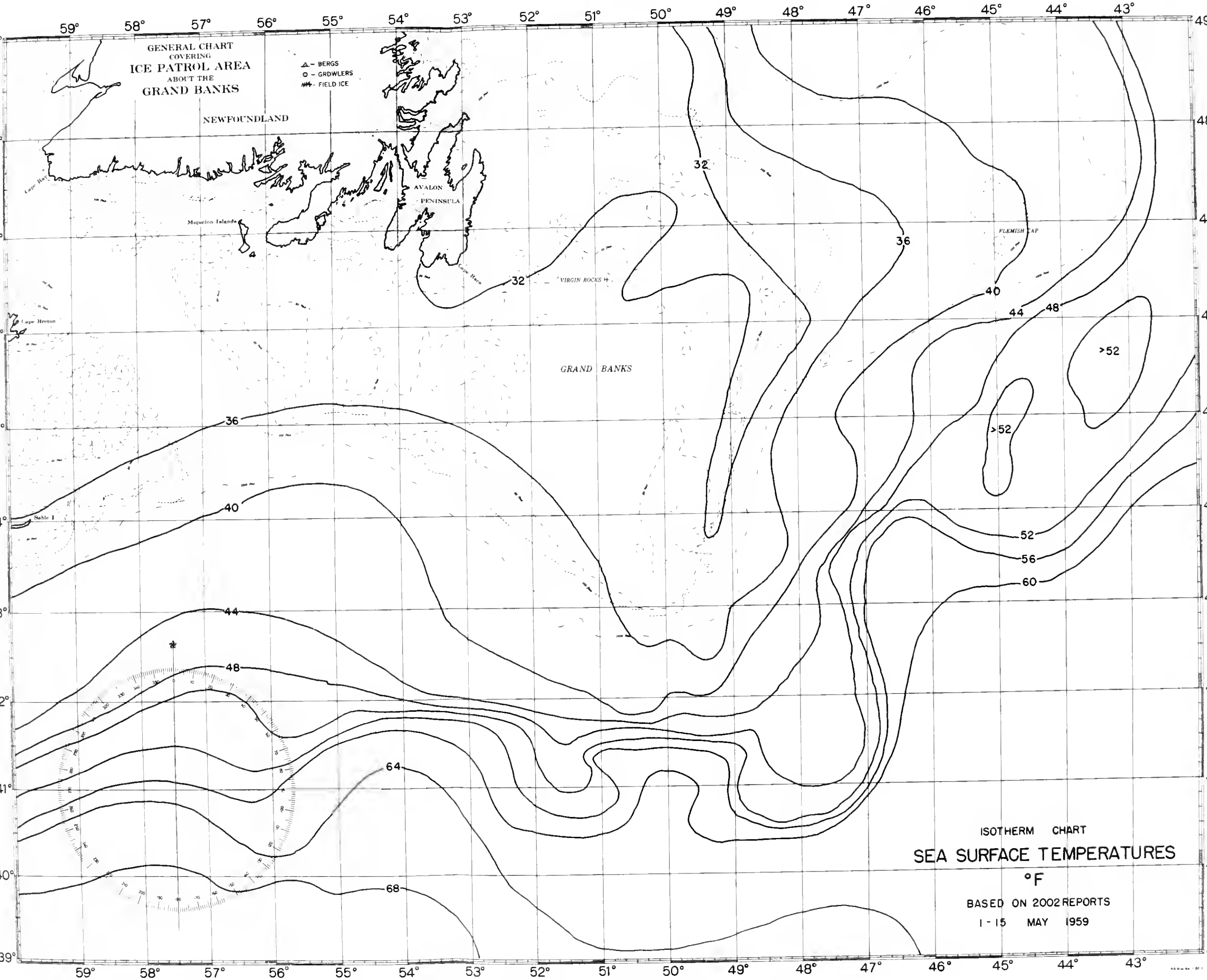

FIGURE 5.—Surface isotherms for the period 1–15 May 1959.

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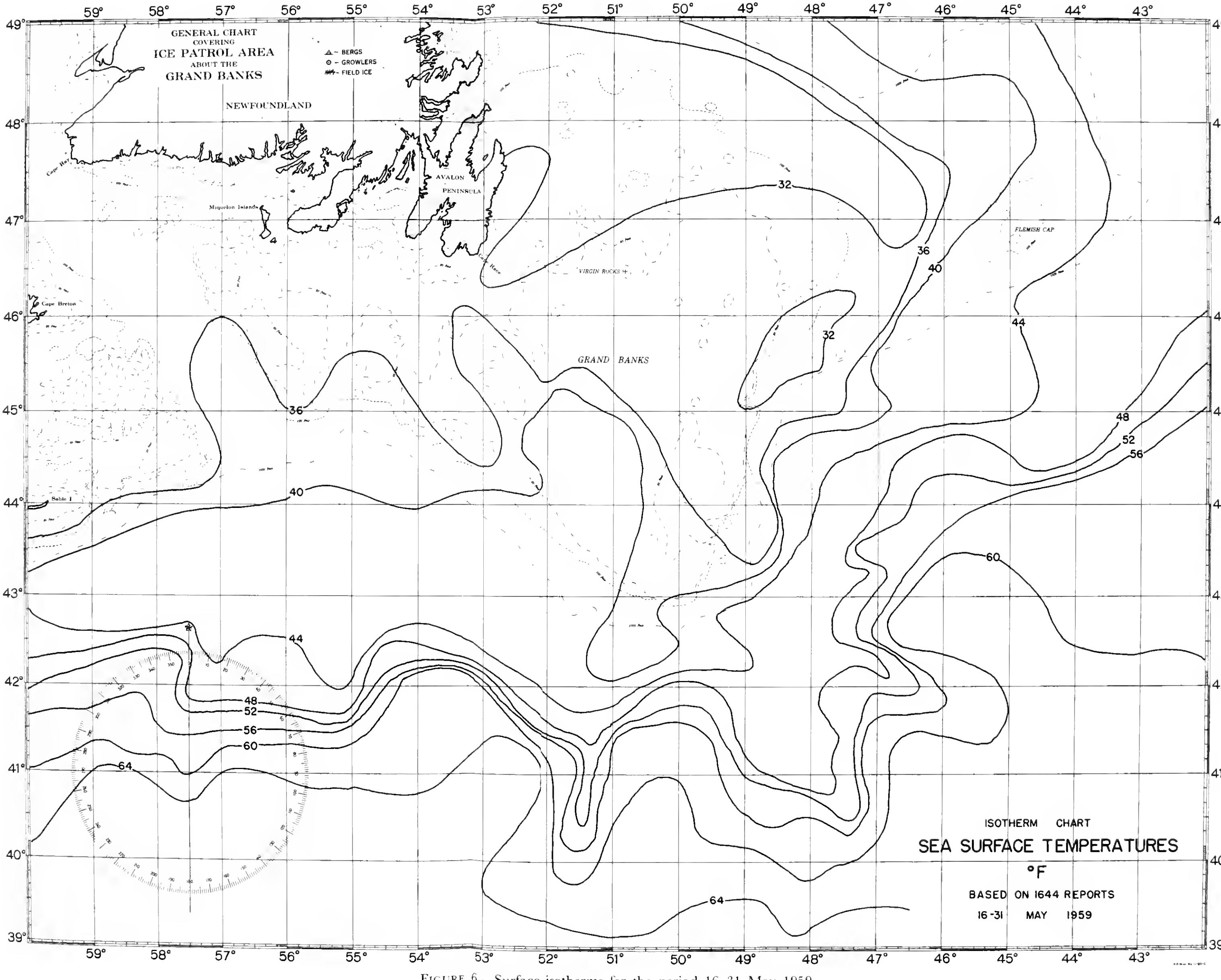

FIGURE 6.—Surface isotherms for the period 16–31 May 1959.

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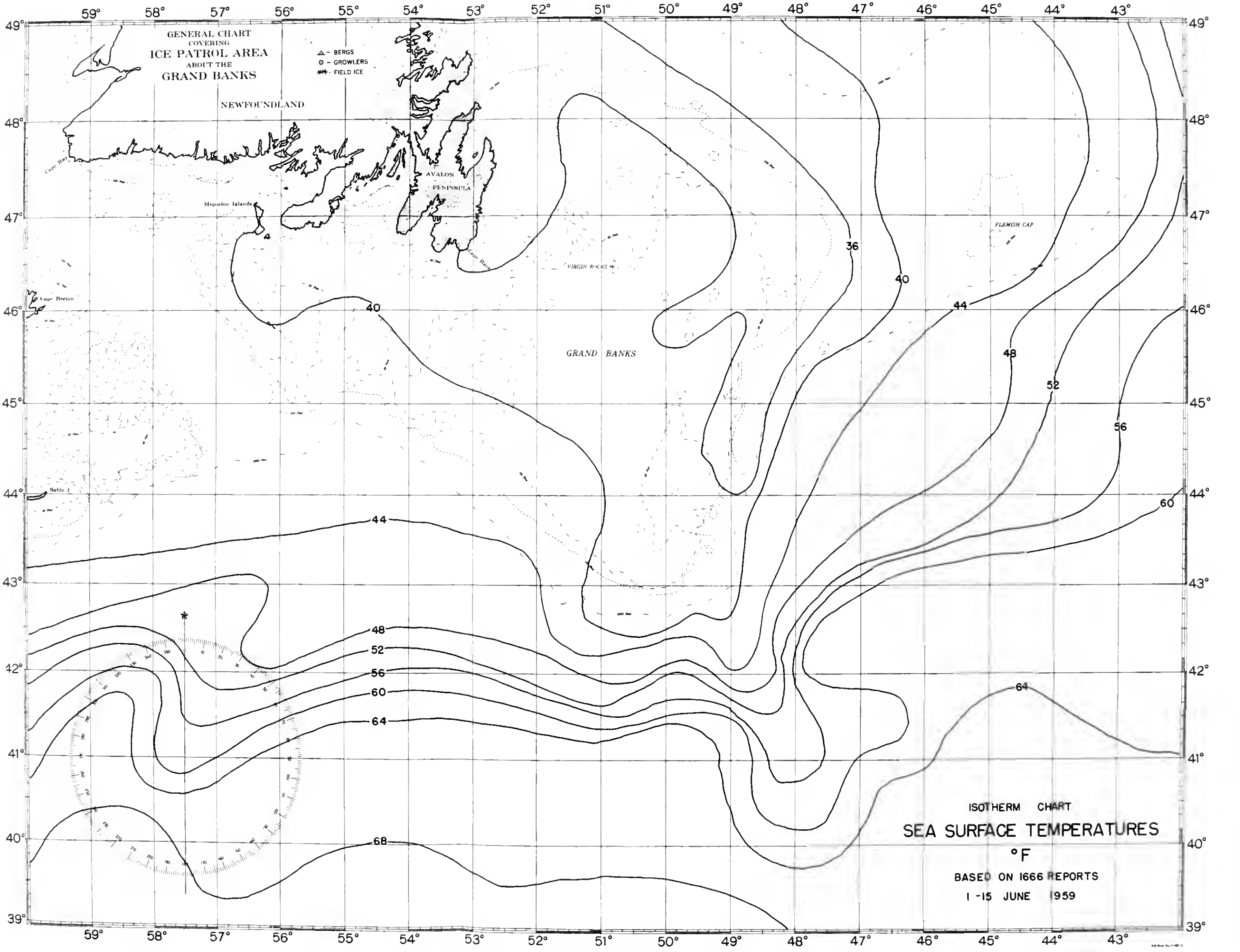

FIGURE 7.—Surface isotherms for the period 1–15 June 1959.

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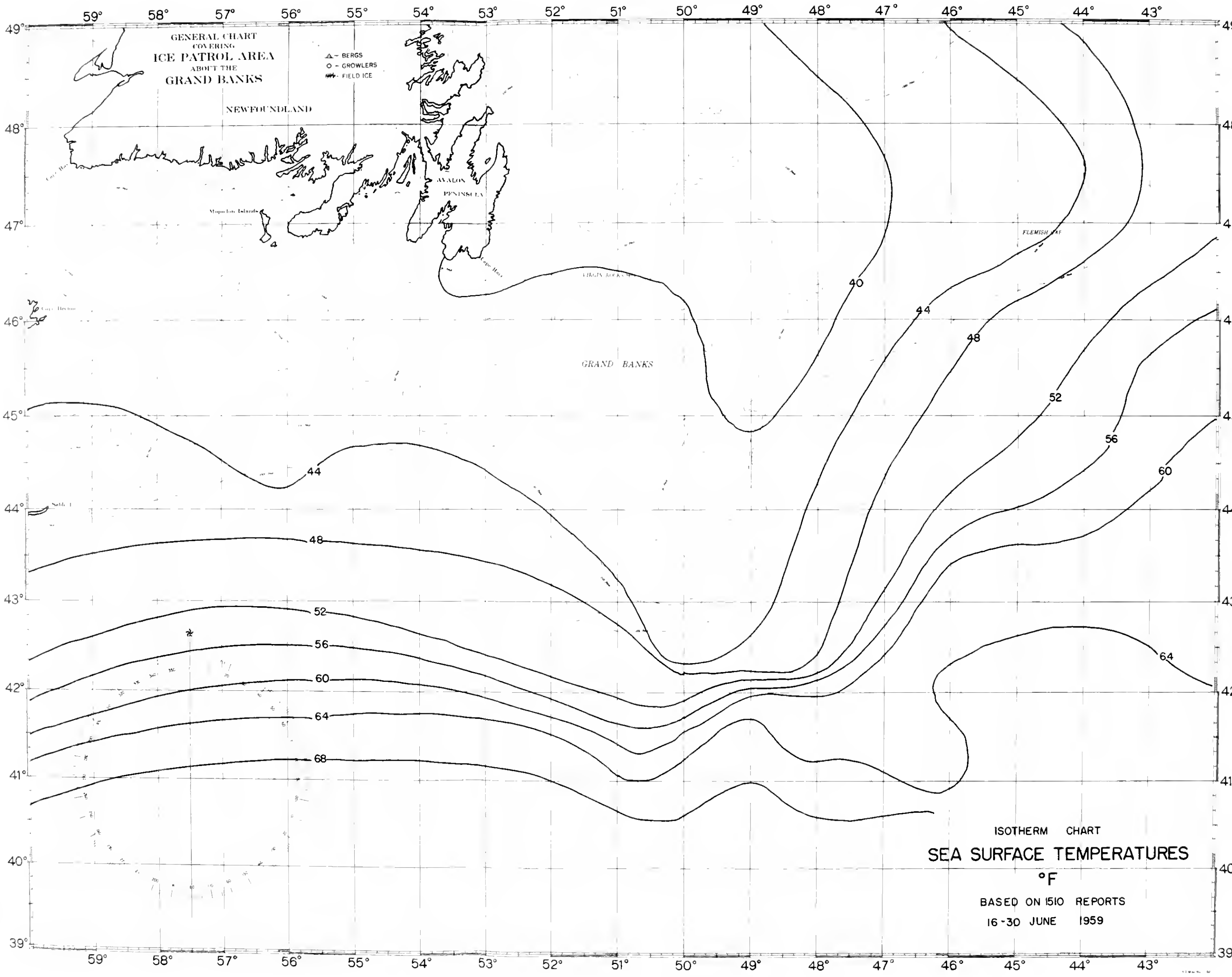

FIGURE 8.—Surface isotherms for the period 16–30 June 1959.

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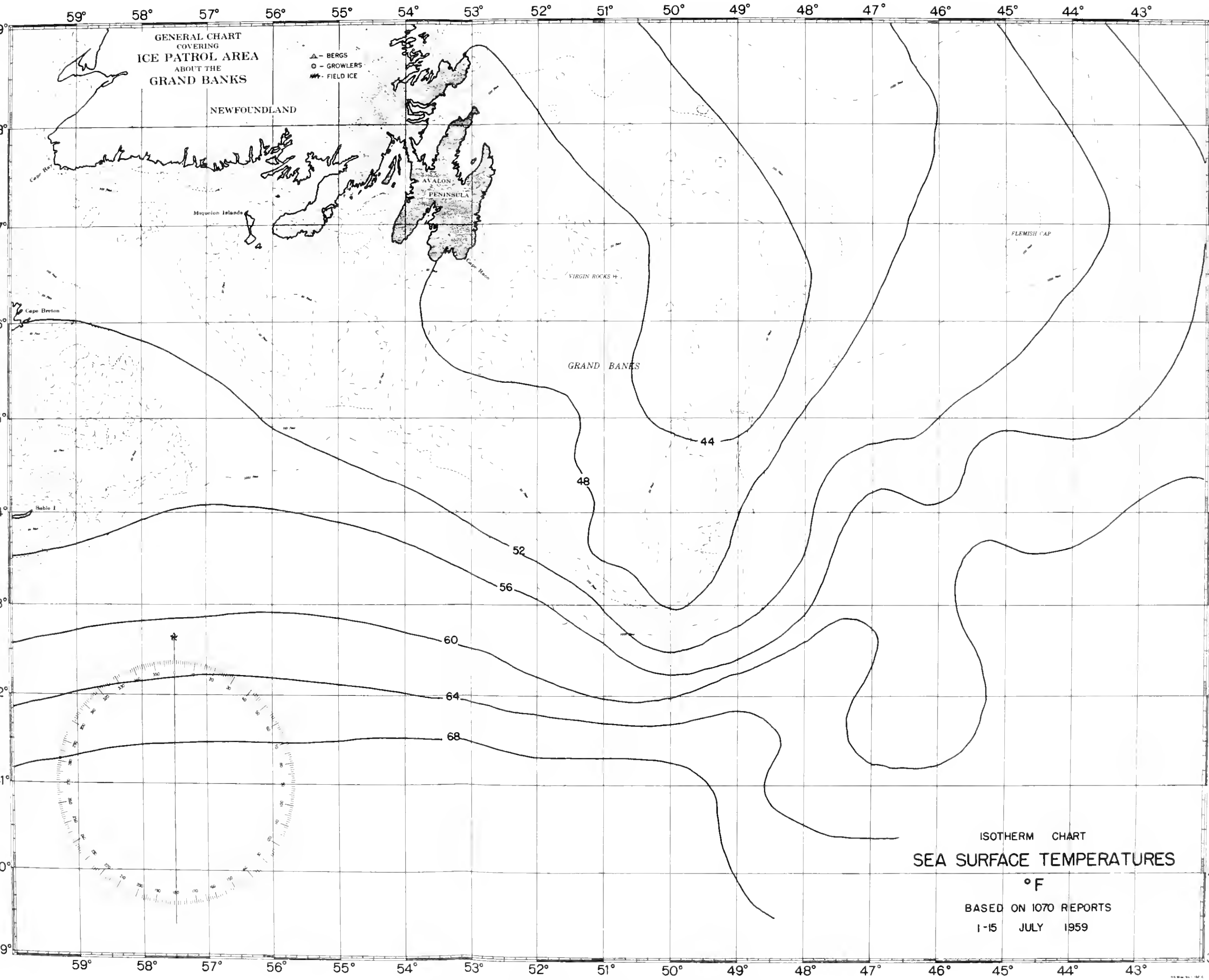

FIGURE 9.—Surface isotherms for the period 1–15 July 1959.

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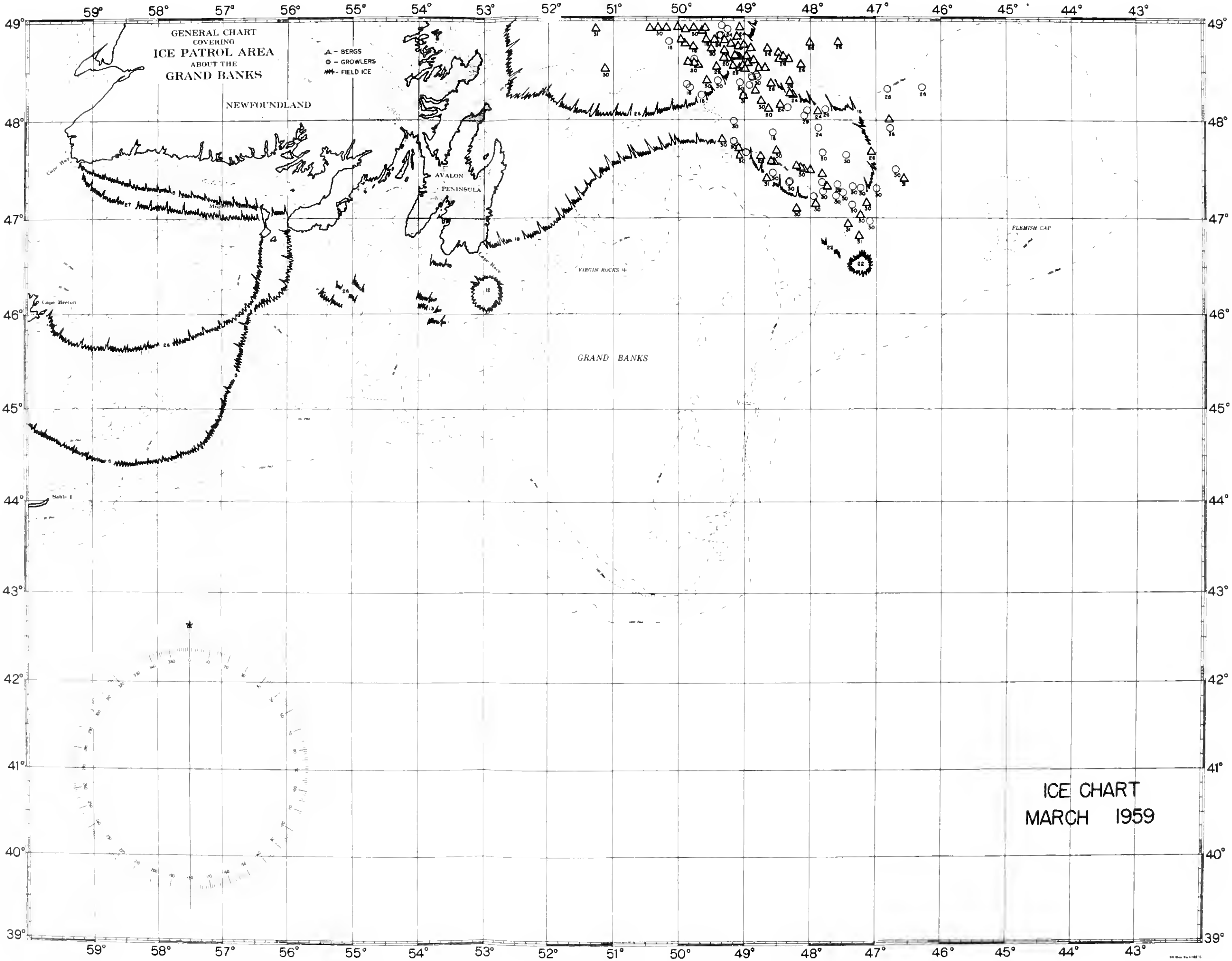

FIGURE 10.—Ice conditions, March 1959. Figures indicate day of month ice was sighted or reported.

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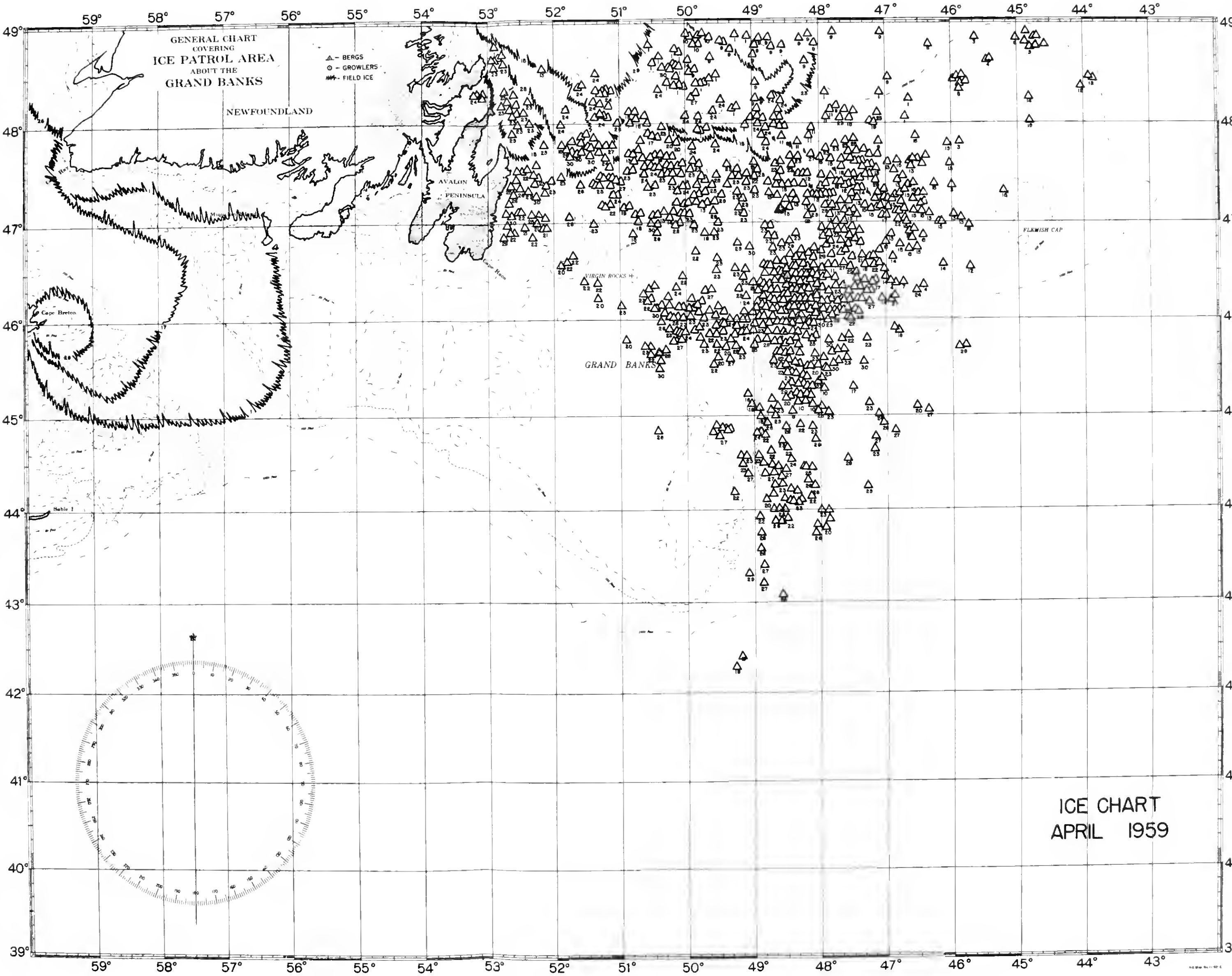

FIGURE 11.—Ice conditions, April 1959. Figures indicate day of month ice was sighted or reported.

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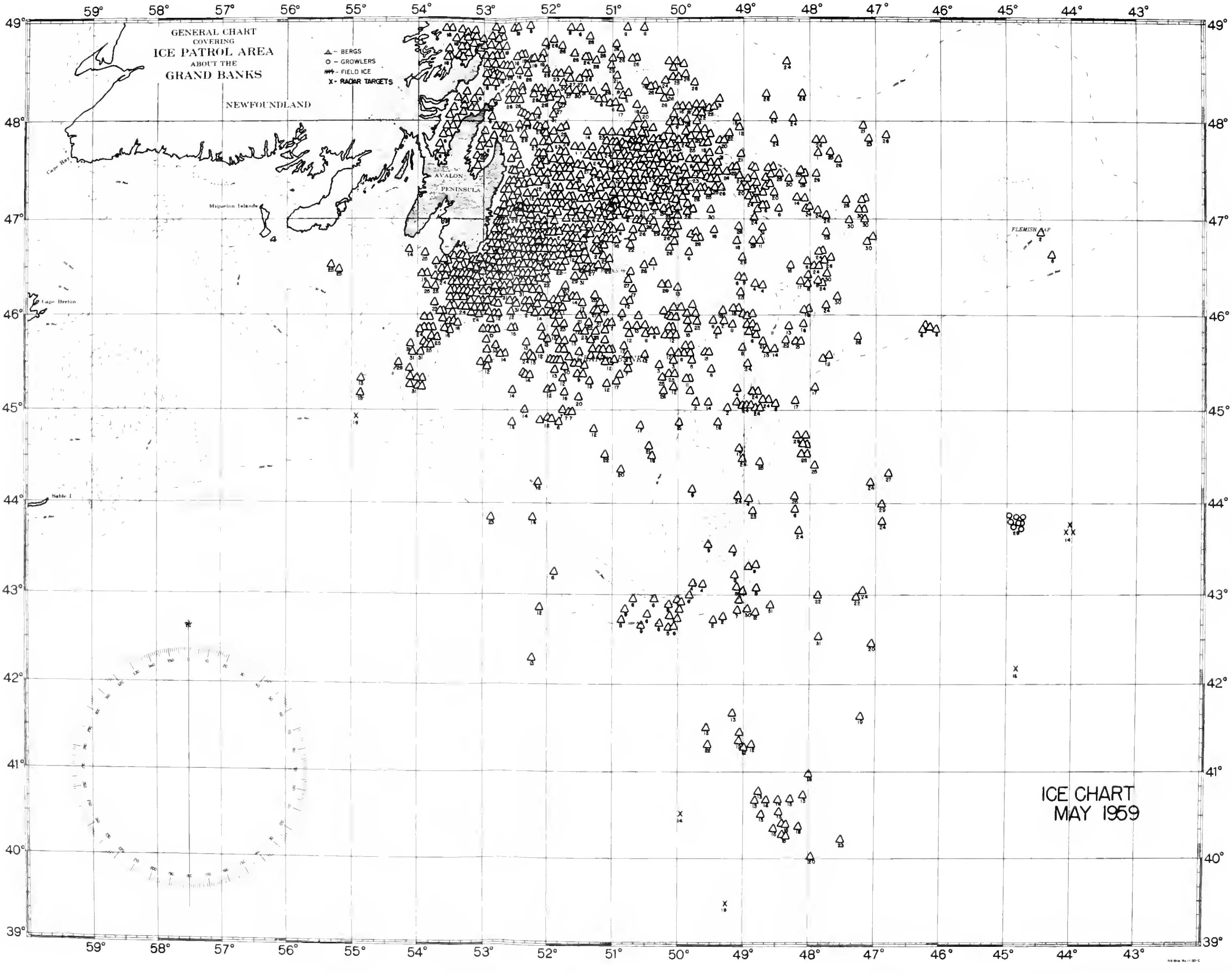

FIGURE 12.—Ice conditions, May 1959. Figures indicate day of month ice was sighted or reported.

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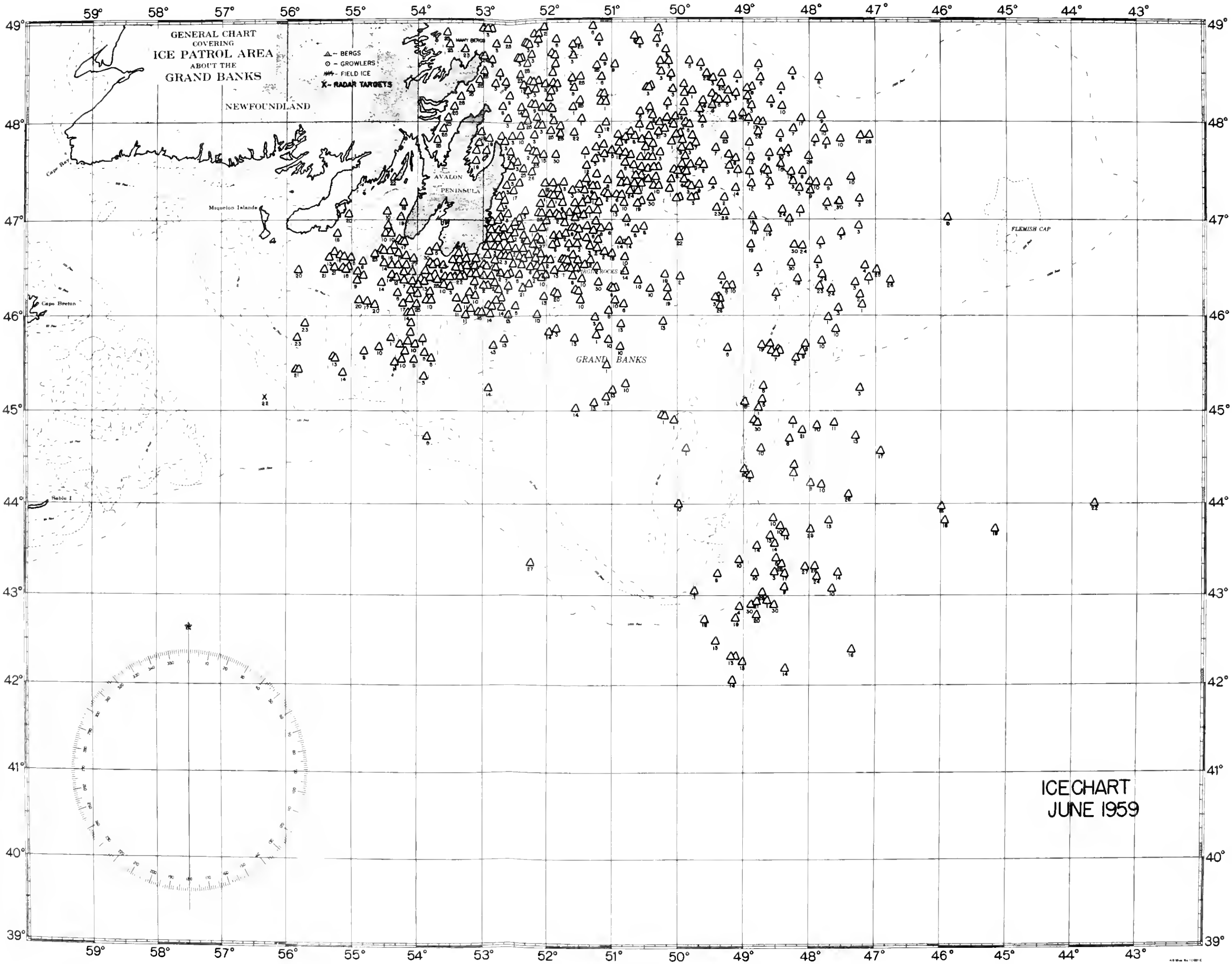

FIGURE 13.—Ice conditions, June 1959. Figures indicate day of month ice was sighted or reported.

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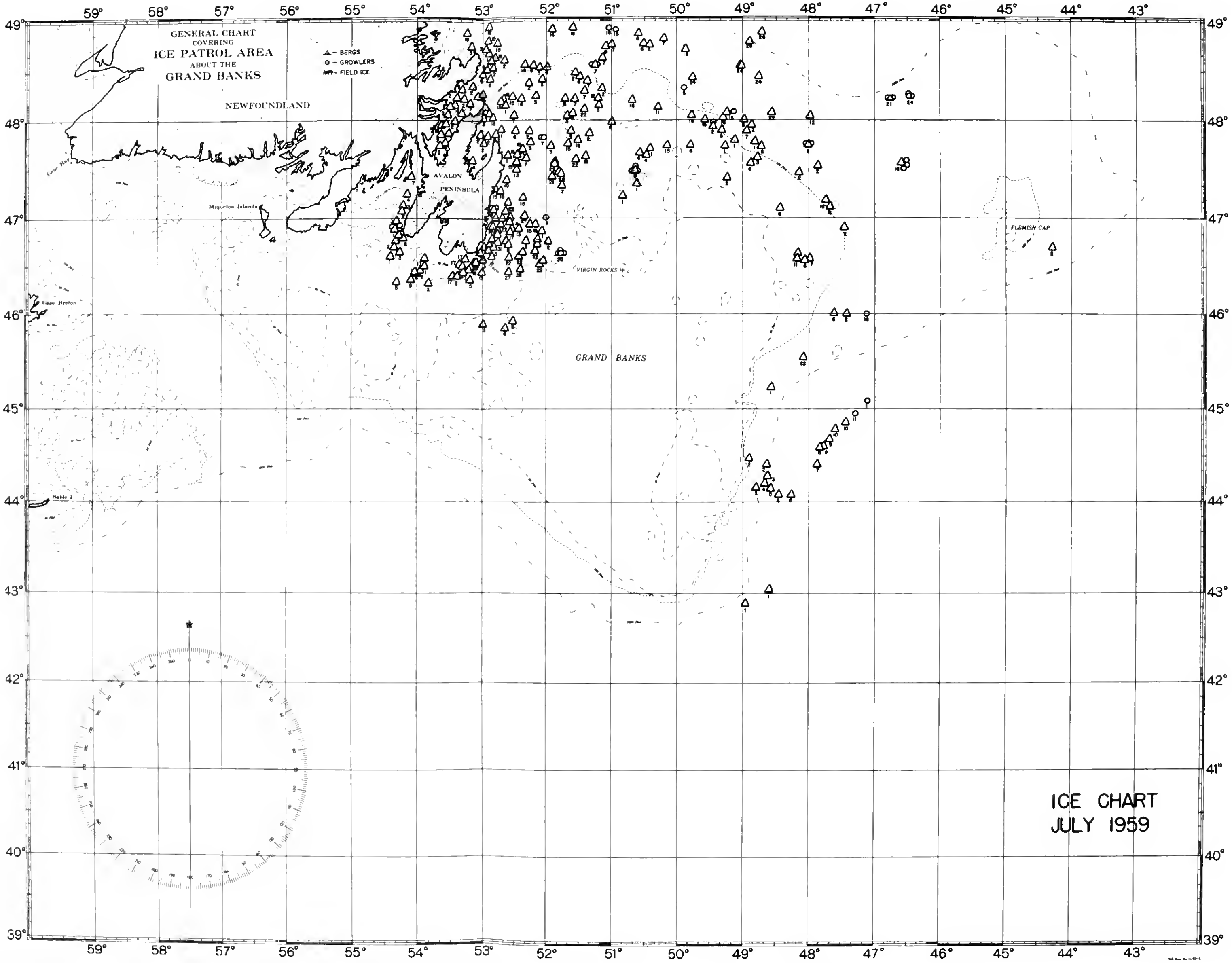

FIGURE 14.—Ice conditions, July 1959. Figures indicate day of month ice was sighted or reported.

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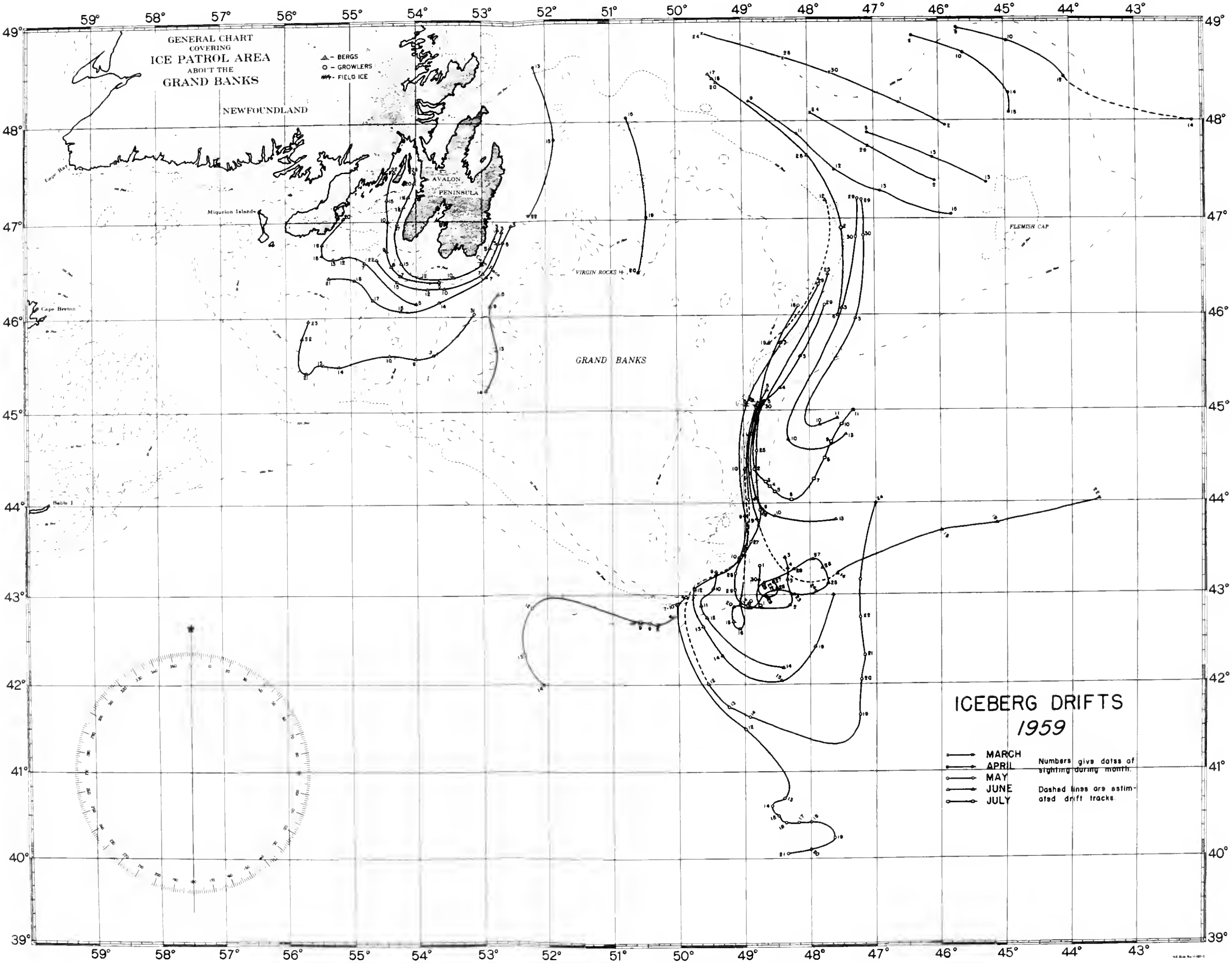

FIGURE 15.—Observed drift tracks for 29 icebergs during the 1959 season.

535456 O - 60 (Face p. 22) No. 15

ginning, the Ice Patrol has attempted many means by which it was hoped to shorten the life of a berg. These have included gunfire, demolition charges, land mines, depth charges, fire hoses and an intrepid Ice Patrol cutter even has been observed to ram an iceberg. In all cases, except perhaps the last, there were little relative effects to be noted.[1]

In a more modern approach to the problem, including thoughts of aircraft operations, a group of officers from the International Ice Patrol and U.S. Coast Guard Headquarters visited the Snow, Ice and Permafrost Research Establishment at its main offices in Wilmette, Ill., during November 1958. That organization, a branch of the U.S. Army Corps of Engineers, has had much experience with the properties of glacial ice and its demolition. Results of discussions at those offices revealed many interesting and progressive treatments in the use of explosives in ice. These included employment of "shaped" charges and special bomb and rocket designs. A disappointing note, however, in the use of conventional explosives is illustrated by the following principle:

> The optimum depth that an explosive charge is detonated for *complete* utilization of the explosion in demolishing the substance within the crater produced theoretically is given by the equation:
>
> $$dc = C\sqrt[3]{w}$$
>
> where:
>
> dc = depth of the crater produced in ft.
> w = weight of the explosive in pounds
> c = a constant which is approximately 4 for glacial ice
>
> Thus a 1,000 lb. charge must be detonated at a depth of 40 ft. for the maximum effect, producing a crater also 40 ft. deep and about 80 ft. in diameter.

This formulation reveals that the maximum theoretical effect that a 1,000 charge of modern conventional explosive would have is the breakup of about 70,000 cu. ft. of ice. This is 1,960 tons and means that a hundred such charges would be required for the destruction of an average-sized berg. Such a practice is physically, as well as economically, unsound.

Melting by heat is equally impractical. By simple physics it can be seen that since the heat of fusion of ice is about 144 Btu/lb, it would require 28 billion (10^9) Btu's of heat energy to melt a medium berg of 100,000 tons. This represents the *complete conversion* of the heat energy contained in 2.4 million gallons of gasoline.

Ice Patrol officers have long been aware of the experiments of the late Prof. H. T. Barnes of McGill University who, in 1926, conducted experiments on grounded icebergs off Newfoundland using thermite explosive charges. The report of Professor Barnes' work[2] showed profound results.

[1] Previous iceberg demolition tests conducted by the Ice Patrol are described in Coast Guard Bulletins of this series for the Ice Patrol Seasons of 1916, 1923, 1924, 1926 and Bulletin No. 19—Part 3.

[2] Marine Observer, Vol. V, No. 59, Nov. 1928, Proceedings of the Royal Society, London, Vol. 114A.

Large bergs literally were reduced to fragments by a series of explosions and reactions.

Thermite has been used successfully in clearing ice jams and opening leads but its use in ice has proven dangerous with at least one known fatality. The theory of its use involves the high temperature of its combustion when the thermite, an intimate mixture of powdered aluminum and iron oxide, reacts to produce molten iron. The high temperature gradient, though from a relatively small heat source, may set up a shock wave within the berg and fracture it along its planes of internal stress.

Barnes' methods were not attempted by the International Ice Patrol due to the hazards of boarding an iceberg in the open sea. Only those who have witnessed the awesome spectacle of a berg close-up can appreciate fully that hazard. It was decided that any experiments for the artificial disintegration of bergs should lay along the theories of Barnes' work but, moreover, should be such as could be accomplished by an aircraft, i.e., bombing. Toward this end, Headquarters, U.S. Coast Guard obtained through the courtesy of the U.S. Department of Defense 20 aircraft incendiary bomb clusters having high temperature characteristics. Ten of these bombs were Mk.35 Type, each weighing 700 lbs and consisting of a cluster of 57 bomblets of 10 lbs. apiece with a filling of 2.75 lbs of PT1 mixture in a magnesium alloy body. PT1 is an incendiary mixture of powdered magnesium and thickened gasoline.

The remaining 10 bombs were Type Mk.36 of similar appearance as the Mk.35. These bombs weighed 975 lbs. and had a cluster of 182, 4-lb.,

FIGURE 16.—U.S. Coast Guard UF–2G amphibian aircraft being armed with 1,000 pound incendiary bomb cluster in preparation for iceberg demolition experiment.

TH3 incendiary bomblets. TH3 is a thermite mixture which when used in munitions has a binder material and is called thermate. Each bomblet contained 10 oz. of thermate and there was a total of 114 lbs. in each bomb cluster.

The frontispiece of this Bulletin shows a Mk.35 bomb being carried in flight and figure 16 shows a Mk.36 bomb being fuzed and loaded.

For the bombing program, a USCG UF2G *Albatross* amphibian aircraft was assigned to Commander, International Ice Patrol on 1 June. The plane and flight crew were from U.S. Coast Guard Air Station, Salem, Mass. The aircraft commander was Lt. Comdr. A. J. Tatman, USCG, a regularly assigned Ice Patrol pilot at Argentia. The UF2G by virtue of its release mechanism for droppable fuel tanks is able to carry and release two bombs; one under each wing.

As an initial target, a medium sized berg grounded near the Virgin Rocks in position 46°31′ N. 52°33′ W. was selected. This area is normally free from any shipping or fishing operations. For a surface guard and to evaluate any results of the bombing, the patrol cutter *Androscoggin*, scheduled to depart *Argentia* on 3 June for relief of the *Acushnet*, was ordered to the designated bombing area enroute.

It was planned that all bombs were to be dropped from an altitude of

FIGURE 17.—Results of bomb drop on 4 June 1959. The incendiary bomb cluster produced much smoke and steam but appeared to have little effect on the disintegration of the berg. The Ice Patrol Vessel, *USCGC ANDROSCOGGIN*, is standing by to evaluate results.

FIGURE 18.—Bomb drop on 10 June 1959. Center of impact of the cluster of 57 bomblets is the darkened crater on the right of the berg.

1,000 ft. which was the minimum that the time of fall would allow the fuze to open the cluster and assure detonation of the bomblets. All bombing runs were to be into the wind on straight and level flight. The 10 Mk.35 bombs were scheduled to be dropped first.

After a day of practice bombing using water and dye filled dummy bombs, the bomb tests were commenced on the morning of 4 June with fine and clear weather. The first bomb to be dropped opened at a planned 100 ft. above the berg and scored a direct hit. (See fig. 17.) About two-thirds of the PT1 bomblets detonated on the berg and the remainder bounced and tumbled over the side of the berg. (This latter occurrence became quite common and represented a serious defect in the use of the cluster bomb on a berg. Any figure in excess of 50 percent detonations was considered good.) From the time of detonation and lasting for about 7 minutes, there was a great amount of smoke and steam released which, for a time, obscured the berg. The target was observed to be pockmarked with dark discolored holes about a foot in diameter and depth.

The second bomb drop 8 minutes after the first also opened 100 ft. above the target but was short and most of the bomblets slid harmlessly down the steep right side of the berg causing little effect. Bomb drops Nos. 3 and 4 closely resembled the second.

Poor weather on 5 June prevented a return bombing flight to the berg under surveillance by the *Androscoggin*. Observers on that ship reported no apparent effect on the deterioration of the berg although on 6 June it shifted axis of flotation 20°. On 7 June the *Androscoggin* proceeded to regular surface Ice Patrol duties.

Bombing runs on 5 June on bergs in Bonavista Bay resulted in two misses and two inconclusive hits. It was decided that a bomb sight should be constructed to replace the crude markers in the cockpit of the plane by which the pilot largely estimated the release point. On June 6–7 a bomb sight was fabricated by modifying the plane's navigational drift sight so that it could be rotated forwarded and set at a precise angle below the horizontal. This angle was computed to be about $30\frac{1}{2}°$ for the bomb trajectory from 1,000 ft. and was the point of release when the image of the berg appeared in the sight. Slight corrections were available to account for berg size, shape, fuze setting and ground speed of the plane. Practice bombing on 8 June proved the sight to be eminently successful. Of the remaining 12 bombs, hits were scored 11 times and the one miss was, in part, due to failure of the fuze to open the cluster.

Bombing was resumed on 10 June when two excellent hits were scored on the first bombed berg at Virgin Rocks. Both hits occurred at the same location, a previously unobserved crater on the front right slope of the berg. Whether or not this crater was caused by the bombing is immaterial as it in no way contributed to the disintegration of the berg which was

FIGURE 19.—Close-up of the crater where bomb hit. Fragments of the magnesium-petroleum bomblets burned for 18 minutes. It was hoped that the sudden high temperatures generated would fracture the berg along the earth and ice veins clearly shown in this photograph.

kept under surveillance until 1 July. The effects of these bombs on 10 June is shown on figures 18–19.

The Mk.36 Thermate bombs were dropped between 12–19 June and were concentrated chiefly on a medium-sized grounded berg near Gull Island off the coast of Newfoundland and about 20 sea miles south of St. John's. This berg was chosen for its optimum size and shape and location to an area which could be kept under observation. Eight excellent hits were scored on this berg from every aspect. The behavior of the thermate bomblets was disappointing in that their small size and apparent delay in detonation resulted in most of them bouncing overboard from the berg. The detonations observed, however, were spectacular; brilliant balls of white flame persisted for longer than 20 minutes. Less smoke was produced than in the case of the Mk.35 bombs but burn holes were larger and deeper with dark red discolorations.

On 19 June it was noticed that one side of the berg where hits had scored 2 days before had calved away. However, other bergs in the area also had calved growlers without the benefit of being bombed. Burn holes made on 12 June were still in evidence on the 19th. Since the berg was actively melting these undoubtedly went quite deep.

As the basic purpose of the tests was to evaluate the performance of operational thermite explosives which could be delivered by facilities available to the Ice Patrol, it can be stated that the tests were successful. While no icebergs were destroyed, 16 hits provided ample opportunity to demonstrate any potential contained within these bombs. The bomb cluster worked its designed purpose only too well and was not able to deliver the required, concentrated high temperature source necessary to the thermal stress theory of ice demolition. The outstanding record of hits on icebergs and the excellent flight characteristics of the aircraft as reported by the plane commander prove that the UF2G is well suited for the purpose. Results of the 1959 tests assure a path for continued experiments in the future.

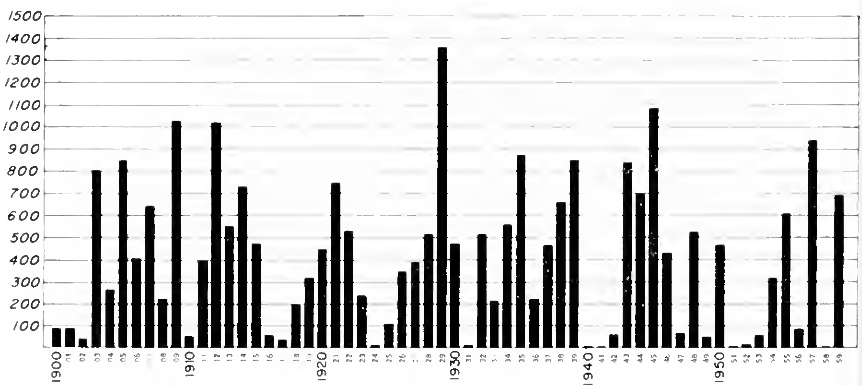

FIGURE 20.—Number of icebergs drifting south of the 48th Parallel, 1900–1959. The average number is about 400.

ICEBERG OCCURENCE BY YEAR AND MONTH 1900-1959

A graph of the number of icebergs drifting south of latitude 48° N. for the years 1900 to 1959 is shown by figure 20. This number is the measure by which the Ice Patrol determines the severity of a year and is the quantity which Ice Patrol officers and others have endeavored to predict by the use of various oceanographic and meteorologic parameters. Discussions of methods and formulae are contained in previous bulletins of this series. To date no satisfactory means has been yet devised which enables the intensity of an iceberg season to be forecast well in advance. Work in this field, however, is continuing.

The average number of bergs appearing south of the 48th parallel each year since 1900 is about 400. The heaviest year was 1929 with 1,352 bergs and the lightest was 1958 when only one berg drifted south. The 693 bergs observed in 1959 make this year rank 12th since 1900 and second since World War II.

The advent of aerial ice observation in 1946 brought about a substantial means to accurately determine the annual count. Prior to then the figure was reckoned from ship reports which contained many duplications. This was somewhat compensated for by unreported bergs but, nevertheless, pre-1946 figures are not entirely comparable with later ones.

Conditions by months for the years 1946-1959 are given in figure 21. The months March-July only are presented since these contain 93.5 percent of the total number of bergs and constitute the so-called "iceberg season."

An examination of figure 21 shows that April is, on the average, the most severe month but is followed very closely by May. June ranks third. This differs from prior years wherein records indicate May to be the heaviest. Regardless, experience has shown that the peak period for iceberg occurrence is usually from the middle of April to the middle of May.

ICE REPORTS 1959

During the 1959 Ice Patrol Season 7,405 ice reports of all types were collected and an additional 251 were received in the remainder of the year thus making a total of 7,656 for 1959. This figure represents the highest number of reports ever recorded by International Ice Patrol.

An interesting comparison is with the 1957 season when a greater number of icebergs drifted south that year, but almost twice as many iceberg reports were received in 1959. Since the number of ships reporting both years is about equal, the probable explanation is that greater concentrations of bergs existed in shipping routes in 1959, and an increased cooperation on the part of all observers.

Commander, International Ice Patrol is grateful to the many masters and officers of ships who have, painstakingly and accurately, reported ice encountered. Records of the Ice Patrol reveal the names of ships and mariners repeated throughout years dating back to the foundings of the

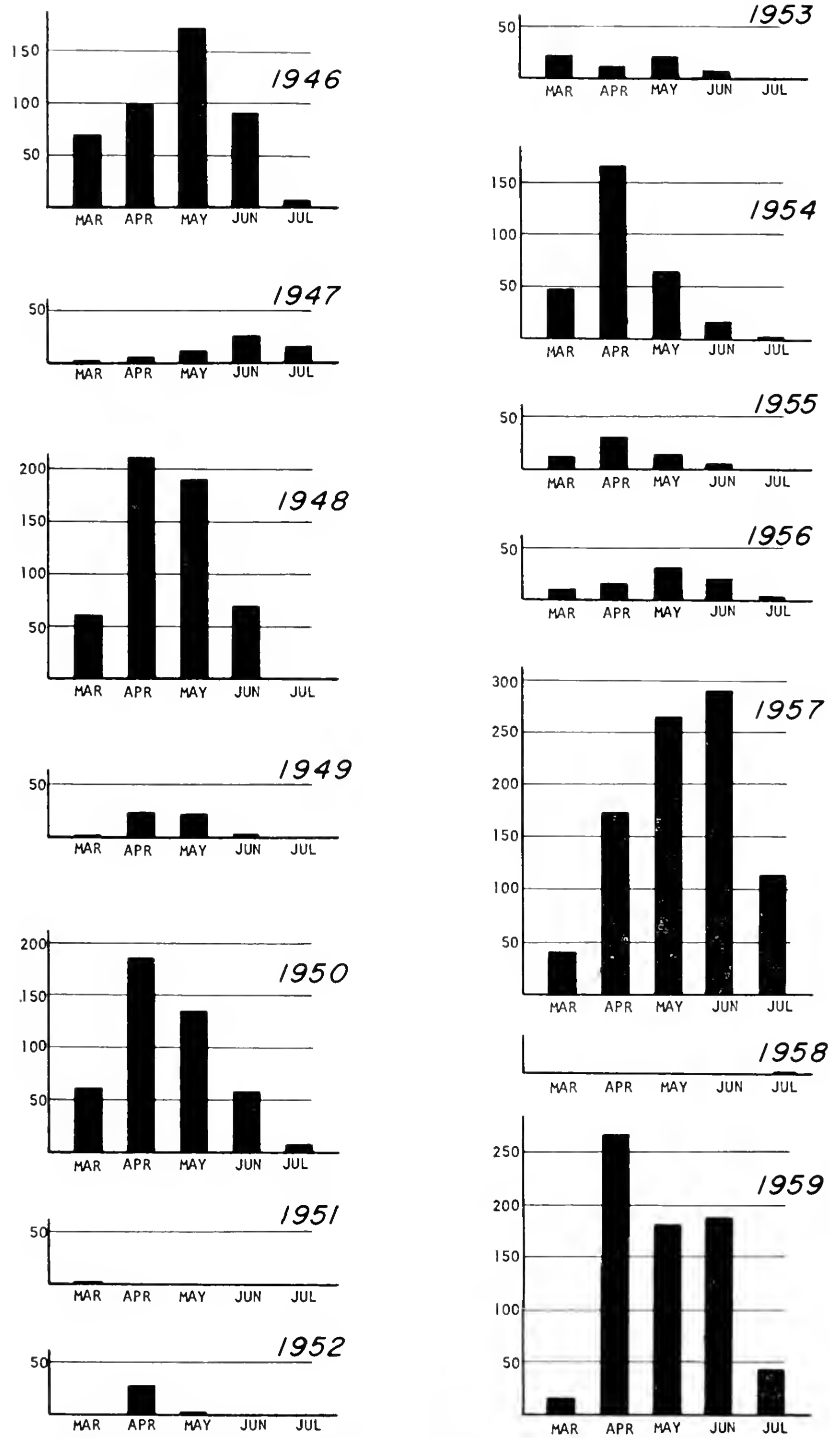

FIGURE 21.—Number of icebergs drifting south of the 48th Parallel, monthly, 1946–1959.

patrol itself. Messages have been received at Ice Patrol headquarters from ships giving positions of no less than sixty sightings. It is recognized that such reports represent no little effort in compilation and transmission. In return for this Commander, International Ice Patrol offers increased vigilance.

The distribution of reports is given as follows:

Source	*Number*	*Percent of total*
Merchant and nonmilitary vessels	4 509	60.8
Ice Patrol Aircraft	1,878	25.4
U.S. Coast Guard Vessels	384	5.2
Ice Patrol Vessels	190	2.6
Naval Vessels	165	2.2
Military and Commercial Aircraft	128	1.8
Others	151	2.0

In addition to reports by ships, ice sightings were received by the Ice Patrol from military and commercial aircraft via various air traffic control centers. Acknowledgment is made to the Barrier Forces of the United States Atlantic Fleet, Rear Adm. William E. Martin, Commander, whose patrol aircraft and ships were especially valuable and cooperative. Canadian agencies reporting were Department of Transport aerial ice observers at Moncton, New Brunswick and Gander, Newfoundland and the Ice Forecasting Central at Halifax, Nova Scotia which furnished daily bulletins for Gulf of St. Lawrence ice conditions. Throughout the field ice season daily reports of ice conditions along the Newfoundland coast were made available to Commander, International Ice Patrol through the courtesy of Canadian National Telegraphs, St. John's.

Due to the large number of ice reports this year, the usual table of ice reports has been omitted. Instead, a table is presented which gives the name of ships and aircraft reporting ice each day during the season. The number of sightings or reports during the day is given in parenthesis following the name of the ship.

SHIPS AND AIRCRAFT REPORTING ICE, SEASON OF 1959

Date			
1 March	SS *Stavangerfjord*	USCGC *Humbolt* (4)	
2 March	SS *Stavangerfjord*	USCGC *Humboldt*	C/V *Cyrus Field*
3 March	SS *Stavangerfjord*	US Naval Aircraft	
4 March	US Naval Aircraft	C/V *John W. Mackay* (3)	Unidentified Vessel
6 March	Ice Patrol Aircraft		
9 March	Ice Patrol Aircraft (17)	US Naval Aircraft	SS *Nordmeer*
10 March	US Naval Aircraft	SS *Cyrus Field*	
11 March	SS *Whakatane*	SS *Consuelo*	
12 March	Ice Patrol Aircraft (3) SS Newfoundland	USCGC *Bibb*	SS *Manchester Explorer*
13 March	USCGC *Coos Bay* SS *Nora Scotia* (2)	USCGC *Bibb*	SS *Manchester Explorer*
14 March	SS *Nora Scotia* (3)		
16 March	Ice Patrol Aircraft (33)	SS *Mormac Saga*	SS *Nora Scotia*
17 March	C/V *John W. Mackay* (2)	USNS *Eltanin* (2)	US Naval Aircraft
18 March	Ice Patrol Aircraft (28)	C/V *John W. Mackay* (2)	
19 March	C/V *John W. Mackay* (2)	USCGC *Owasco*	
20 March	Ice Patrol Aircraft (14)	C/V *John W. Mackay*	
21 March	C/V *Cyrus Field*		

22 March	USCGC *Owasco* (2)	SS *Cairnogowan*	USCGC *Eastwind*
23 March	USCGC *Eastwind* (6)		
24 March	Ice Patrol Aircraft (19)		
25 March	USCGC *Humboldt* (2)	USNS *Alatna* (2)	
26 March	Ice Patrol Aircraft (45)	USCGC *Eastwind*	USNS *Alatna* (2)
27 March	USNS *Alatna* (3) USCGC *Humboldt*	C/V *John W. Mackay* (2) FNS *l'Aventure*	SS *Santa Rita*
28 March	SS *Santa Rita* (5)	SS *Mormacpenn*	
30 March	Ice Patrol Aircraft (114) SS *Santa Rita* (3) C/V *John W. Mackay*	USCGC *Westwind* SS *Manchester Explorer* (2) SS *Cairndhu* (4)	SS *Stavangerfjord*
31 March	SS *Cairndhu* (5) SS *Statensingel* (2)	SS *Hjoerdisthorden* SS *Santa Rita*	RCAF Aircraft (5)
1 April	Ice Patrol (64) US Naval Aircraft	SS *Cairndhu*	SS *Uddeholm*
2 April	US *Nova Scotia* (3) FNS *l'Aventure* (4)	USCGC *Evergreen*	SS *Uddeholm*
3 April	FNS *l'Aventure* USNS *Mirfax* (2)	SS *Germont* US Naval Aircraft (2)	SS *Vot Tur* (2)
4 April	SS *Germont* (2) US Naval Aircraft	SS *Beaverlodge* (2)	USCGC *Westwind*
5 April	SS *Manchester Faith* SS *Prinz Willem* SS *Germont*	SS *Batory* F/V *Charlesld* US Naval Aircraft	USCGC *Westwind* (2)
6 April	SS *Edenwood* SS *Marionga Maris*	SS *Melida* (4) SS *Seven Seas* (3)	USCGC *Westwind* (3) SS *Germont*

SHIPS AND AIRCRAFT REPORTING ICE, SEASON OF 1959 Continued

Date			
7 April	Ice Patrol Aircraft (21) SS *Mariwunga* (3)	SS *Arkadia*	SS *Lukes Fjell*
8 April	US Naval Vessel SS *Carinthia*	SS *Anna Odland* SS *Ranenfjord* (2)	SS *Consuelo* (4)
9 April	Ice Patrol Aircraft (38) US Naval Vessel US Naval Aircraft (2)	USNS *Mission Santa Ynez* USNS *Eltanin* (2) SS *Consuelo*	SS *Empress of Britain*
10 April	Ice Patrol Aircraft (6) SS *Erin Nuebel* USNS *Mission Santa Ynez* SS *Mosenes*	SS *Clemens Sartori* US Naval Aircraft (3) US Naval Vessel	SS *Consuelo* (3) CGS *N. B. McLean* SS *Lahnstein*
11 April	US Naval Aircraft (2) SS *Septiles*	SS *Arkadia* (7) SS *Consuelo*	USCGC *Barataria* (7)
12 April	SS *Orernia* SS *Konsul Sartori* (3) SS *Marquette* SS *Seven Seas* (2) SS *Ryndam*	SS *Irpinia* (4) SS *Dorion* C/V *John W. Mackay* (2) USCGC *Westwind*	SS *Godafoss* (4) SS *Ludolf Olden Doff* SS *Arkadia* USCGC *Barataria* (12)
13 April	Ice Patrol Aircraft (22) USCGC *Evergreen* SS *Ramore Head* SS *Woodford* SS *Dartwood*	SS *Angilan* SS *Irish Plane* (3) USCGC *Westwind* SS *Weissenburn* (2) SS *Tazaforte* (3)	SS *Cairnavon* (6) SS *Bergensfjord* (5) C/V *John W. Mackay* (4 RCAF Aircraft
14 April	SS *Cibyholm* USNS *Mirfak* SS *Batory* SS *Beechmore* (4) SS *Panagiotisl*	SS *Dartwood* SS *Dammtor* SS *Woodford* SS *Newfoundland* (5)	SS *Beavercove* USCGC *Owasco* SS *Empress of France* SS *Aghiosnicolaos*

15 April	Ice Patrol Aircraft (71) SS *Lismoria* (9) USCGC *Evergreen* (2) SS *Lackaela*	SS *Beechmore* (5) SS *Beavercove* SS *Saxonia* (16) SS *Empress of France* (13)	SS *Roonagh* (10) SS *Prins Frederk Willem* (2) SS *Larrinaga* (2)
16 April	SS *Franeisca Sartori* USS *Kretchmer* (2) SS *Nova Scotia* US Naval Vessel SS *Isaac Carter*	SS *Welsh Trader* USCGC *Evergreen* SS *Torsholm* SS *Carinthia*	SS *Caxton* (3) SS *Empress of France* (4) SS *Empress of Britain* (3) SS *Corfu Island*
17 April	Ice Patrol Aircraft (8) SS *Rigolletto* SS *Empress of Britain* (11)	SS *Carinthia* (4) SS *Vasaholm*	SS *Corfu Island* SS Naval Aircraft (2)
18 April	SS *Manchester Port* (8) USCGC *Evergreen* (5)	US Naval Vessel SS *Stavangerfjord* (8)	SS *Beavercove* F/V *Alisio*
19 April	SS *Alstern* SS *Assyria* SS *Stavangerfjord* SS *Homeric* (5)	SS *Rondo* SS *Manchester Port* (2) SS *Johannes Russ* SS *Nova Scotia* (18)	SS *Selje* SS *Jenstoft* (2) US Naval Aircraft
20 April	Ice Patrol Aircraft (12) SS *Hudson Deep* (2) SS *Cleopatra* (3) SS *Wendover* (3) SS *Santa Maria* (4) SS *City of Colombo* (8)	SS *Atnajoekul* (2) SS *City of London* (5) USCGC *Mackinae* (15) SS *Carl Meebtzen* SS *Laustmaersk* SS *Huntsbrook* (3)	US Naval Vessel SS *Maleom* SS *Bellatrix* USNS *Eltanin* (2) SS *Ingrid Wiede* (3)
21 April	SS *Suninger* SS *Norwegian*	USCGC *Mackinae* (2) SS *Beaverlodge* (2)	SS *Ingrid Wiede* SS *Extaria*
22 April	Ice Patrol Aircraft (23) SS *Vila Cho* USS *Trigger* SS *Manchester Prospector* (2) SS *Beverlodge* (8)	SS *Empress of England* (8) SS *Foldenfjord* SS *Sylvania* (10) SS *Statensingel* (9) SS *Foldenfjord*	USS *Roy O'Hale* (4) SS *Ingrid Weide* SS *Irish Plane* C/V *Lord Kelvin* SS *Elfriede*

Date			
23 April	Ice Patrol Aircraft (305) Ice Patrol Vessel F/V *Santiago* SS *Borgholm* (6) USS *Roy O'Hale* (4) SS *Montreal City* (3) SS *Anna Orland* (4) SS *Armaco*	SS *Prins Willem* (6) SS *Foldenfjord* (2) SS *Laholm* (3) SS *Statensingel* (3) SS *Beaverlodge* (4) SS *Manchester Mariner* SS *Beaverlake* (2) SS *Dunadd* (5)	US Naval Vessel (1) US Naval Aircraft (3) SS *Elfriede* (7) SS *Empress of England* SS *Transmichigan* (2) SS *Sylvania* (1) SS *Empress of France*
24 April	Ice Patrol Aircraft (35) Ice Patrol Vessel SS *Beaverlodge* (6) USCGC *Cook Inlet* (4) SS *Carl Julius*	SS *Empress of France* (24) SS *Fauvette* SS *Beaverburn* SS *Erriken*	F/V *Captain Theo* SS *Dunadd* (3) SS *Beaverdell* C/V *Lord Kelvin*
25 April	Ice Patrol Vessel SS *Homeric* (3) SS *Cairngowan* (4)	US Naval Aircraft SS *Uddeholm*	SS *Bolvia* (6) C/V *Lord Kelvin* (9)
26 April	Ice Patrol Aircraft (9) Ice Patrol Vessel SS *Nordland* SS *Redcar* (2) SS *Beltinge*	SS *Bolvia* (2) SS *Saxonia* SS *Palermo* (6) SS *Ageansun* (2)	SS *Monica Smith* SS *Rheinstein* (5) SS *Consuelo* (4) SS *Manchester Pioneer*
27 April	Ice Patrol Vessel SS *Prins Willem* USCGC *Campbell* (7) US Naval Aircraft (2) SS *Abbotsford*	US Naval Vessel SS *Rheinstein* (4) SS *Transpacific* (9) Commercial Aircraft (2) SS *Hugo Nielsen*	SS *Stavangerfjord* (4) SS *Arkadia* (2) SS *Consuelo* (7) C/V *Lord Kelvin* (3)
28 April	Ice Patrol Vessel SS *Abbot Ford* (3) SS *Hoper Ridge* (3) SS *Christian Sartori*	USS *Roy O'Hale* (3) SS *Lismoria* (3) SS *Beavercove* (8) SS *Marius Nielsen* (19)	SS *Arabia* (8) SS *Tazacorte* SS *Afganistan* (3) SS *Ruth Lake*

29 April	Ice Patrol Aircraft (12)	SS *Beaverlen* (8)	C/V *John W. Mackay* (2)
	Ice Patrol Vessel	SS *Ramore Head* (7)	SS *Newfoundland* (6)
	SS *Ruth Lake* (3)	SS *Susan Constant* (7)	SS *Imperial Sarnia* (3)
	SS *Cristian Sartori* (3)	SS *Empress of Britian* (25)	SS *Arnewood* (2)
	SS *Traviata*	SS *Dundee* (6)	SS *Tazacorte* (2)
	SS *Lismoria* (15)	SS *Kirstinitoft* (2)	USNS *Alatna* (3)
	SS *Iron Age*	SS *Ivernia* (2)	
	SS *Afganistan* (3)		
30 April	Ice Patrol Vessel	SS *Skogholm*	USNS *Mirfak* (2)
	SS *Oregis* (2)	SS *Ivernia* (4)	US Naval Aircraft (9)
	USS *Kirkpatrick* (5)	SS *Lakonia* (6)	C/V *John W. Mackay* (19)
	SS *Rathlin Head* (6)	SS *Dunaab*	SS *Arnewood* (2)
	SS *Dunadd* (4)		
1 May	Ice Patrol Aircraft (24)	SS *Lakonia* (2)	SS *Ravenfjord* (3)
	Ice Patrol Vessel	SS *Redcar* (2)	SS *Seven Seas*
	SS *Nautic*	SS *Beaverford*	USNS *Mirfax* (2)
	SS *Olympia* (5)	SS *Carton* (2)	KLM Aircraft
	SS *Empress of England* (4)	SS *Bernirebal*	C/V *John W. Mackay* (9)
	USS *Thomas J. Gary*		
2 May	Ice Patrol Vessel	USS *Thomas J. Gary* (4)	SS *Batory*
	SS *Statendam*	SS *Torsholm* (3)	USCGC *Half Moon*
	SS *Manchester Regiment* (5)	SS *Redcar*	C/V *John W. Mackay* (2)
	SS *Cairnaron* (4)	SS *Transquebec* (2)	SS *Porjus*
	SS *Sylvania* (5)		
3 May	Ice Patrol Vessel	SS *Carinthia*	SS *Statensingel* (3)
	C/V *Monarch*	USS *Thomas J. Gary*	USCGC *Half Moon* (2)
	SS *Tunaholm* (2)	SS *Sylvania* (3)	C/V *John W. Mackay*
	SS *River Afton* (4)	SS *Magdeburg* (4)	SS *Porjus*
	SS *Cairnaron* (2)	SS *Arkadia* (3)	
4 May	Ice Patrol Vessel	SS *Carrigan Head* (7)	SS *Hugo Nielsen* (2)
	SS *Asia* (2)	SS *Santa Maria*	SS *Harpula*
	SS *Angelina Lauro* (2)	SS *Gem*	

Date			
5 May	Ice Patrol Vessel USCGC *Acushnet* SS *Beaverlake* (4) SS *Prins Irine*	SS *Santa Maria* SS *Manchester Port* (3) SS *Nova Scotia* SS *Rogn*	SS *River Afton* (6) SS *Geheimrat Sartori* SS *Transatlantic*
6 May	Ice Patrol Vessel USCGC *Evergreen* SS *Sir Andrew Duncan* SS *Beaverlake* (2) USS *Thomas J. Gary*	SS *Empress of France* (11) SS *Ravanger* (2) SS *Calgaria* (9) SS *Charlton Mira* (7) USCGC *Humboldt* (5)	SS *River Afton* (4) SS *Saltvik* USCGC *Barataria* (10) SS *Naess Trader* (7)
7 May	Ice Patrol Vessel F/V *Storm* SS *Afganistan* SS *William Carson* C/V *John W. Mackay* (5)	USCGC *Evergreen* USS *Thomas J. Gary* SS *Montreal City* SS *Empress of Britain* (6) SS *Charlton Mira*	SS *Belle Isle* SS *Nova Scotia* (15) USCGC *Barataria* (6) Ocean Station *Bravo* (3)
8 May	Ice Patrol Aircraft (103) Ice Patrol Vessel US Naval Vessel USCGC *Barataria* (11)	SS *Irish Rose* SS *Afganistan* SS *Laloma* SS *Maple Hill Mane*	SS *Boston Comet* SS *Empress of Britain* (5) SS *Gowrie* C/V *John W. Mackay*
9 May	Ice Patrol Aircraft (25) Ice Patrol Vessel USN Aircraft (4) SS *Manchester Progress* (6)	SS *Beaverlodge* (8) USCGC *Evergreen* SS *Hubro* (2) SS *Laurentia* (4)	SS *Manchester Pioneer* (3) SS *Naess Trader* SS *Mormacwind*
10 May	Ice Patrol Vessel SS *Carinthia* (4) SS *Seven Seas*	SS *Ravenfjord* SS *Beaverglen* SS *Beaverlodge*	SS *Mormacwind* (4) USCGC *Spencer* (5)
11 May	Ice Patrol Vessel SS *Thorerid* SS *Beaverglen* (3)	SS *Norfolk* (2) USCGC *Spencer* (2)	USN Aircraft USCGC *Evergreen* (2)
12 May	Ice Patrol Aircraft (96)	SS *Fredrico Heredia*	USN Aircraft

	SS *Esso Camden*	SS *River Afton* (5)	USNS *Mirfak* (12)
	SS *Hillcrest*	SS *Birmingham City* (7)	USCGC *Evergreen* (7)
	SS *Neptune*	USS *Selstrom* (8)	SS *Roonagh Head* (32)
	USS *Grouper* (2)	USCGC *Spencer* (3)	C/V *John W. Mackay*
	USS *Somers*	SS *Transpacific* (13)	SS *Manchester City* (7)
	SS *Salacia* (7)	SS *Beaverdell* (4)	SS *Rialto* (2)
13 May	Ice Patrol Aircraft (26)	USS *Selstrom* (4)	SS *Beaverburn* (2)
	SS *Birmingham City* (3)	SS *Empress of England* (20)	SS *Dentran Serie*
	SS *Manchester City* (4)	PAA Aircraft	SS *Tarakan*
	SS *Rialto* (13)	SS *London Splendor*	SS *American Scout* (2)
	SS *Prins Hendrik*	USS *Hissem*	SS *Damo*
	C/V *John W. Mackay* (2)	SS *Amsteldyk*	USS *Grouper* (4)
	USCGC *Spencer* (5)	SS *American Pilot*	
14 May	Ice Patrol Aircraft (41)	US Naval Vessel	USCGC *Acushnet* (3)
	SS *Saxonia* (13)	SS *Thesee*	SS *Erita*
	SS *Beaverburn* (16)	SS *Parthia*	SS *Ternefjell*
	USCGC *Ingham* (3)	SS *Arabia* (7)	USN Aircraft (4)
	SS *American Scout* (2)	USS *Selstrom*	USNS *Donner*
	SS *Elizabeth Bowater* (3)	SS *Beaverford* (10)	SS *Homeric* (9)
	USCGC *Cook Inlet* (19)		
15 May	Ice Patrol Vessel	SS *Bergensfjord* (2)	SS *Asia* (2)
	SS *Manchester Mariner* (12)	SS *Homeric* (6)	SS *Nelly*
	SS *Empress of France* (26)	USCGC *Cook Inlet* (3)	SS *Rigoletto*
	SS *Beaverford* (4)	SS *Stavangerfjord* (8)	SS *Lakonia*
	USCGC *Acushnet* (2)	SS *Maria Althoff* (3)	SS *Zeeland*
	SS *Mildred Cord* (4)	SS *American Chief*	SS *Ironage*
16 May	Ice Patrol Aircraft (21)	USN Aircraft (5)	SS *Mormacsaga*
	Ice Patrol Vessel	SS *Cairngowan* (21)	SS *Iron Age* (3)
	SS *Gem* (2)	USS *Hissem* (9)	SS *Artemide*
	USCGC *Acushnet*	SS *Elizabeth Bowater* (2)	USCGC *Ingham*
	SS *Lakonia* (39)	SS *Asia* (12)	
17 May	Ice Patrol Aircraft (45)	USCGC *Ingham*	SS *Cairngowan* (6)
	Ice Patrol Vessel	SS *Darrotn*	SS *Isaac Carter* (7)
	SS *Sylvania* (10)	SS *Mormacsaga*	SS *Lousado*
	USS *Hissem* (3)		

SHIPS AND AIRCRAFT REPORTING ICE, SEASON OF 1959—Continued

Date			
18 May	Ice Patrol Aircraft (55) Ice Patrol Vessel SS *Isaac Carter* SS *Sylvania* (5) USN Aircraft	SS *Nova Scotia* (4) SS *Arkadia* (22) SS *Sourva* SS *Emsstein* SS *Anna Orland*	SS *Hornilif* (2) SS *Marwick Head* USS *Hissem* SS *Newfoundland*
19 May	Ice Patrol Aircraft (66) Ice Patrol Vessel SS *Silvia* (3) SS *Nova Scotia* (4) SS *Lismoria* (39) SS *Pennyworth*	USS *Hissem* (2) SS *Caxton* (3) SS *Grecian Valour* (3) SS *Weissenburg* (10) SS *World Treasurez*	SS *Caslon* SS *Bellatrix* SS *Calgaria* (12) SS *Newfoundland* (2) SS *August Schulte* (12)
20 May	Ice Patrol Vessel SS *Nordmeer* (22) USCGC *Androscoggin* SS *Dunadd* (5) SS *Wiessenburg* (5)	SS *Gylfe* (3) SS *Jackson Princess* (2) SS *Pennyworth* (3) SS *Empress of England* (10) SS *Cairndhu* (18)	H/V *Gileannes* (2) SS *Calgaria* (8) F/V *Charlesld* SS *Angelcia Schulte*
21 May	Ice Patrol Vessel SS *Newfoundland* SS *Empress of England* (15) SS *Dunadd* (26) SS *Varholm* (2)	SS *Avasaksa* (8) SS *Elettre Fassio* (2) US Naval Vessel (2) USCGC *Androscoggin* (3)	SS *Irish Willow* (2) SS *Evita* (3) SS *Beavercove* SS *Manchester Miner*
22 May	Ice Patrol Aircraft (29) Ice Patrol Vessel SS *Sunbreeze* C/V *Monarch* (5) USN Aircraft (2) SS *Caroline Smith* (30) SS *Pacific Conqueror* (3)	SS *Dartwood* (6) SS *Runswick* (2) SS *Iron Age* (7) SS *Duncraig* (9) USCGC *Androscoggin* USNS *Alatna* USS *Otterstetter*	SS *Johanna* (2) SS *Tazacorte* (5) SS *Empress of England* (16) SS *Beavercove* (3) SS *Manchester Miller* (12) SS *Princess Irene*
23 May	Ice Patrol Vessel SS *Saxonia* (24) SS *Palastinian Prince* (5)	SS *Erin Nuebel* SS *Oslofjord* (5) SS *Amber*	USCGC *Yakutat* (7) SS *Lahnstein*

24 May	Ice Patrol Vessel	USCGC *Yakutat* (6)	SS *Sylvania* (16)
	SS *Saxonia*	SS *Oslofjord*	SS *Lahnstein*
	SS *Arkadia* (16)	SS *Beaverlodge* (73)	SS *Bonde*
	USN Aircraft (2)	SS *Prins Frederik Willem* (2)	SS *Naumburg* (8)
	PAA Aircraft	SS *Mountathos*	SS *Francis Sartori*
	SS *Carl Julius* (2)	SS *Amber*	
25 May	Ice Patrol Aircraft (38)	SS *Godafoss*	SS *Carinthia* (26)
	SS *Manchester Progress* (4)	SS *John Lyras*	SS *Beaverburn* (28)
	SS *Pennyworth* (24)	SS *Cleopatra* (3)	SS *Prins Frederik Willem*
	SS *Homeric* (3)		
26 May	Ice Patrol Aircraft (57)	SS *Cleopatra* (6)	SS *Birmingham City* (4)
	Ice Patrol Vessel	SS *Arabia* (7)	SS *Beaverlake* (2)
	USCGC *Half Moon*	SS *Beaverburn* (9)	SS *Norma County*
	FNS *l'Aventure* (2)	SS *Ingrid Weide* (3)	SS *Ribble Head* (3)
	SS *Ramorf Head* (3)	SS *Sun Hill*	SS *Dunadd* (17)
27 May	Ice Patrol Vessel	SS *Manchester Vanguard* (4)	SS *Ivernia* (9)
	SS *Afganistan* (12)	SS *Ribblehead* (9)	SS *Dunadd* (12)
	SS *Leada* (19)	SS *Huldra* (3)	USCG Aircraft (2)
	SS *Empress of France* (43)	SS *Dungraig* (2)	USNS *Alatna*
	SS *Beaverlake* (32)	USNS *Mills* (4)	USN Aircraft
	SS *Foldenfjord* (3)	USCGC *Androscoggin* (6)	SS *Ogna County* (2)
	SS *Arnewood*	USCGC *Half Moon* (10)	SS *Ingrid Weide*
28 May	Ice Patrol Aircraft (64)	USCGC *Absecon* (2)	USCGC *Half Moon* (10)
	Ice Patrol Vessel	SS *Empress of Britain* (30)	SS *Orelia* (25)
	SS *Ivernia* (15)	SS *Manchester Vanguard* (8)	SS *Morar* (4)
	SS *Palermo* (5)	SS *Welheim*	USN Aircraft
	USCGC *Androscoggin* (9)		
29 May	Ice Patrol Aircraft (21)	SS *Rievaoux* (2)	SS *Empress of Britain* (4)
	Ice Patrol Vessel	SS *Manchester Faith* (17)	SS *Transontario*
	SS *Stad Gent*	Ocean Station BRAVO	SS *Olympia*
	SS *Caxton* (15)	SS *Irish Elm* (20)	USCGC *Androscoggin* (6)
	SS *Afganistan* (2)	SS *Derby*	SS *Vasum*
	SS *Bergensfjord* (2)	SS *Silvaplana* (3)	SS *Manchester Merchant*

SHIPS AND AIRCRAFT REPORTING ICE, SEASON OF 1959 Continued

Date			
30 May	Ice Patrol Vessel	SS *Rhenania*	SS *Erholm* (15)
	SS *Eli Marie* (2)	SS *Erholm* (5)	Canadian Naval Vessel
	SS *Bergensfjord*	SS *Esso Portland*	SS *Manchester Port* (2)
	SS *Afganistan* (8)	SS *Batory* (17)	SS *Elfriede* (2)
	USNS *Mills*	USN Aircraft (3)	SS *Carton* (11)
	SS *Transcanada* (3)		
31 May	Ice Patrol Vessel	SS *Irving Glen* (2)	SS *Orelia* (5)
	SWISSAIR Aircraft	SS *Manchester Port*	SS *Elise Schulte* (3)
	SS *Carinthia* (18)	SS *Rialto* (11)	SS *Byklefjell*
	SS *Calcatterra*	SS *Tobon* (2)	USN Aircraft
	SS *Manchester Mariner* (6)	USCGC *Yakutat* (3)	SS *Erholm*
	SS *Oslofjord* (4)	SS *Arnewood*	SCANDIA Aircraft
1 June	Ice Patrol Aircraft (16)	USCGC *Humboldt* (11)	SS *Tritonia*
	Ice Patrol Vessel	USNS *Pvt. John R. Towle* (6)	SS *Vibyholm*
	USNS *Point Barrow* (4)	SS *Beaverford* (18)	SS *Elise Schulte*
	SS *Rialto* (9)	SS *Sackville*	USAF Aircraft
	SS *Carinthia* (6)	SS *Consuelo* (14)	SS *Erholm* (2)
	SS *Manchester Mariner* (2)	USCGC *Evergreen*	
2 June	Ice Patrol Vessel	SS *Kristina Thorden*	SS *Ribblehead* (14)
	SS *Beaverglen* (9)	SS *Carl Julius* (2)	SS *Beavercove* (16)
3 June	Ice Patrol Aircraft (75)	SS *Beaverglen* (2)	SS *Saurel* (22)
	Ice Patrol Vessel	SS *Lacordillera* (2)	SS *Susan Constant* (2)
	SS *Empress of England* (78)	SS *Abisko* (4)	SS *Desdemonia* (5)
	USN Vessel (2)	SS *Nordland* (22)	
4 June	Ice Patrol Vessel	SS *Saurel* (8)	SS *Jalanta*
	SS *Anna Odland*	SS *Baskerville*	SS *Rheinstein*
	SS *Manchester Venture* (2)	SS *Home City* (7)	USCGC *Evergreen*
	SS *Desdemonia* (19)	USN *Vessel* (2)	SS *Traviata*
	USCGC *Androscoggin* (9)		
5 June	Ice Patrol Aircraft (37)	SS *Nova Scotia*	SS *Erriken* (13)

	Ice Patrol Vessel	SS *John Collett*	SS *Rievaulx*
	SS *Cairndhu* (9)	SWISSAIR Aircraft	SS *Seven Seas* (2)
	SS *Statensingel*	USN Aircraft	SS *Manchester Spinner* (10)
	SS *Manchester Venture* (2)	SS *Kristina Thorden* (9)	USS *Callaterra*
	SS *Desdemonia* (7)	SS *Elizabeth Bowater* (4)	SS *Bergensfjord* (3)
	USCGC *Androscoggin* (3)	USN Vessel	SS *Invicta*
	SS *Empress of France* (41)	USCGC *Owasco*	SS *Mormacwind*
6 June	USCGC *Androscoggin* (4)	SS *Manchester Spinner* (11)	SS *Ivernia* (6)
	USN Vessel	SS *Cape Franklin* (2)	SS *Rievaulx*
	SS *New York* (18)	SS *Kristina Thorden* (2)	SS *Catherine Sartori* (14)
	SS *Bergensfjord* (17)	SS *Sinikka* (9)	SS *Korbach*
	USCGC *Owasco*	SS *Mormacwind* (2)	
7 June	SS *Nova Scotia* (5)	SS *Arkadia* (9)	USN Aircraft
	SS *Saxonia* (20)	SS *Ramore Head* (9)	SS *Kildale* (2)
	SS *Ivernia*	SS *Stavengerfjord* (14)	SS *Asia*
	USCGC *Androscoggin*	SS *Korbach* (11)	USCGC *Evergreen*
	USN Vessel		
8 June	SS *Beaverlake* (19)	USN Vessel	USCGC *Ingham* (2)
	SS *Asia* (18)	SS *Batory* (4)	SS *Monrovia*
	SS *Manchester Miller*	SS *Nordland* (10)	SS *Skogholm*
	USCGC *Androscoggin* (2)	SS *Sylvania* (24)	
9 June	Ice Patrol Aircraft (42)	SS *Nordland* (8)	SS *Carrigan Head* (3)
	SS *Desdemonia* (2)	SS *Manchester Pioneer*	SS *Salacia* (12)
	SS *Consulartt* (2)	SS *Edenmore* (10)	SS *Beechmore* (2)
	USNS *Mirfak* (4)	SS *Louisa Gorthon* (3)	USS *Somers* (3)
	SS *Toben* (2)	SS *Askot* (2)	SS *Chrisofer*
	SS *Beaverlake* (2)	SS *Cattaro*	SS *Karen Reed* (9)
10 June	Ice Patrol Aircraft (35)	PAA Aircraft	SS *Karen Reed* (5)
	Ice Patrol Vessel	USS *Kretchmer* (7)	SS *Alisio* (2)
	SS *Empress of Britain* (21)	SS *Edenmore* (6)	SS *Iron Age* (5)
	SS *Jersbek* (2)	SS *Roland Russ* (4)	USCGC *Ingham*
	USN Vessel	SS *Otto Nuebel* (3)	SS *Mark Mark*

SHIPS AND AIRCRAFT REPORTING ICE, SEASON OF 1959—Continued

Date			
11 June	Ice Patrol Vessel	SS *Empress of England* (10)	SS *Jersbek* (3)
	USAF Aircraft	SS *Edenmore* (13)	SS *Iron Age* (11)
	SS *Naess Trader* (3)	SS *Manchester Prospector*	SS *Caslon*
	SS *Trollafoss*		
12 June	Ice Patrol Aircraft (24)	SS *Empress of England* (2)	SS *Transquebec*
	Ice Patrol Vessel	SS *Michael*	SS *Bertha Entz* (3)
	SS *Beaverdell* (13)	SS *Pennyworth* (3)	USCGC *Mackinac* (11)
	SS *Naess Trader* (2)	SS *Atheldulke*	
13 June	Ice Patrol Vessel	USS *LSM 373* (2)	USNS *Point Barrow*
	USCGC *Mackinac* (6)	SS *Elizabeth Berger* (3)	SS *Arkadia*
	SS *Athel Duke* (5)	SS *Pennyworth* (4)	SS *Highliner*
	SAS Aircraft	SS *Manchester Merchant* (10)	C/V *John W. Mackay*
	SS *Irpenia*	Royal Yacht *Britannia* (2)	SS *Manchester Explorer*
	SS *Eckeroe*	SS *Homeric* (3)	SS *New York*
	SS *Laurentia* (4)	SS *Laselua*	SS *Didaholm*
14 June	Ice Patrol Vessel	C/V *John W. Mackay*	SS *Marxburg*
	SS *Homeric* (11)	SS *La Loma*	SS *River Afton* (2)
	USNS *Point Barrow*	USCGC *Macinac* (24)	SS *Consuelo* (7)
	SS *Manchester Explorer*	SS *Stavangerfjord*	SS *Hoyanger*
	SS *Saxonia* (10)	SS *Lica Maersk*	SS *Pegasus* (2)
	SS *Manchester Merchant* (4)	SS *Flying Spray* (4)	SS *Athelduke* (5)
	SS *Beaverford* (17)	SS *Sylvania* (19)	SS *Weissenburg* (12)
	SS *Elizabeth Berger*	SS *Beaverlodge* (13)	SS *Guisedde Gwietti* (3)
	SS *Nordlendingur* (2)	USCGC *Evergreen*	USCGC *Spencer*
15 June	Ice Patrol Aircraft (15)	SS *Stavangerfjord* (4)	C/V *Cyrus Field*
	Ice Patrol Vessel	SS *Ranenfjord* (2)	SS *White Rose*
	HMCS *Lanark*	SS *Carinthia* (12)	SS *Clio* (2)
	SS *Hilwi*	KLM Aircraft (2)	SS *Harvey Mudd*
	SS *Cade Scott* (2)	SS *Clintonia* (5)	SS *Sinka*
	SS *Hoyanger*	SS *Saxonia*	C/V *John W. Mackay*
	USCGC *Evergreen* (2)	SS *Orkla*	SS *Beaverford*
	SS *Calgaria*	SS *Consuelo* (4)	

16 June	Ice Patrol Vessel SS *Chicago* (2) HMCS *Lanark* (4) SS *Beaverglen* (13) USCGC *Yakutat* (18) SS *Empress of France* (3)	SS *Ranenfjord* (3) SS *Fanad Head* SS *Cairn Gowan* (2) SS *Iron Age* (8) SS *Louisa Gorthon* SS *Lukesjfell* (5)	SS *Calgaria* (3) USCGC *Evergreen* (3) SS *Emsstein* SS *Norgard* SS *Mormacdenn*
17 June	Ice Patrol Aircraft (14) Ice Patrol Vessel SS *Nora Scotia* (2) SS *Oslofjord* (7) USCGC *Campbell* (7)	USCGC *Yakutat* (24) SS *Iron Age* (4) SS *Ophelia* SS *Empress of France* (15) SS *Chicago* (8)	C/V *John W. Mackay* (3) HMCS *Bonaventure* (4) SS *River Afton* (4) SS *Kungsholm* SS *Worldinghamhill*
18 June	Ice Patrol Vessel HMCS *Lanark* (4) SS *Transatlantic* (2) SS *Montreal City* HMCS *Gatineau* (8)	SS *Naess Trader* (7) SS *Imperial Halifax* (2) USCGC *Yakutat* (2) SS *Nova Scotia* (2) SS *Merlin*	USCGC *Evergreen* SS *Newfoundland* (4) SS *Oslofjord* USCGC *Campbell* SS *Lakonia* (4)
19 June	Ice Patrol Vessel USNS *Mission Santa Ynez* SS *Nova Scotia* (2) SS *Asia* (7) USNS *Greenville Victory* (3) HMCS *Lanark* C/V *Cyrus Field*	SS *Albano* (2) HMCS *Bonaventure* (7) SS *Berkersheim* C/V *John W. Mackay* SS *Montreal City* USCGC *Yakutat* (2)	SS *Lakonia* (10) USNS *Redbud* (22) SS *Birmingham City* USN Aircraft (4) USN Vessel (3) SS *Kungsholm*
20 June	Ice Patrol Vessel SS *Lakonia* (3) HMCS *Bonaventure* USCGC *Absecon*	USS *Roy O'Hale* (3) USS *Atka* SS *Ingrid Weide* (2) SS *Manchester Faith* (2)	SS *Ramon de Larrinaga* SS *Burin* SS *Knoblake* (3) SS *Birmingham City*
21 June	Ice Patrol Vessel USCGC *Absecon* SS *Carinthia* (2) DLH Aircraft SS *Manchester Faith* (8)	SS *Sweetwater* USS *Roy O'Hale* (2) SS *Bergensfjord* (2) HMCS *Cap de Lamadeleine* (3) SS *Ingrid Weids*	SS *Montreal City* SS *Bericersheim* (2) SS *Newfoundland* HMCS *Lanark*

SHIPS AND AIRCRAFT REPORTING ICE, SEASON OF 1959 Continued

Date			
22 June	Ice Patrol Aircraft (13)	SS *Bergensfjord*	USCGC *Westwind* (2)
	Ice Patrol Vessel	USCGC *Absecon*	SS *Rigmor Nielson*
	SS *Cleopatra*	SS *Santa Maria* (2)	SS *Dalhanna* (2)
	USS *Camp*		
23 June	Ice Patrol Vessel	SS *Selma Thorden*	SS *Liverpool Packet* (2)
	SS *Lahnstein* (31)	SS *Selano*	SS *Beavercove*
	SS *Pennyworth* (3)		
24 June	Ice Patrol Vessel	HMCS *Cap de la Madeleine*	SS *Ouistreham*
	SS *Media*	SS *Italia* (4)	SS *Beavercove*
	SS *Gripsholm*	SS *Dalhanna* (4)	SS *Liverpool Packet*
	SS *Cleopatra* (3)		
25 June	Ice Patrol Aircraft (59)	USNS *Pvt. John Towle* (4)	USN Vessel
	Ice Patrol Vessel	SS *Manchester Pioneer* (3)	SS *Runswick* (3)
	USCGC *Evergreen* (2)	C/V *Cyrus Field* (4)	SS *Oslofjord* (4)
	SS *Media* (3)	SS *Beaverdell*	USN Aircraft
	SS *Cleopatra*		
26 June	Ice Patrol Aircraft (13)	SS *Seven Seas*	USCGC *Spencer* (7)
	Ice Patrol Vessel	SS *Baron Nuebel*	SS *Yebala*
	USS *Kirkpatrick* (4)		
27 June	Ice Patrol Vessel	SS *Beaverlodge* (2)	SS *Caltex Newcastle* (7)
	USNS *Pvt. John Towle*	SS *Vebala*	SS *Rheinstein* (5)
	SS *Anna Katrin Fritzen*		
28 June	Ice Patrol Vessel	SS *Anastasia*	SS *Gardenia*
	SS *Mount Athos*	SS *New York*	SS *Calgaria* (3)
	SS *Caltex Newcastle* (8)	USNS *Mizar* (2)	
29 June	Ice Patrol Aircraft (33)	USCGC *Owasco* (3)	SS *Irish Willow*
	Ice Patrol Vessel	SS *Ravenfjord*	SS *New York City*
	SS *New York*	USNS *Mirfak*	SS *Yebala* (3)

30 June	Ice Patrol Aircraft (17) Ice Patrol Vessel USS *Thomas J. Gary* (4)	SS *African Count* SS *Atlantic Empress* SS *Noordam*	SS *Saint Pierre* SS *Yebala*
1 July	Ice Patrol Vessel SS *Homeric* (10)	SS *Irish Rose* SS *Robin Locksley* (2)	SS *Tobin* SS *Caltex Newcastle*
2 July	Ice Patrol Aircraft (26) Ice Patrol Vessel SS *Olar Ringdal* (3) SS *Iron Age* (3)	SS *Newfoundland* (2) SS *Arnewood* (2) SS *Caltex Newcastle* (7)	SS *Irish Rose* (7) SS *Tobin* NORTHSTAR Aircraft
3 July	Ice Parrol Vessel USNS *Pvt. McGraw* (7) SS *Andrea Brovig*	USCGC *Duane* (4) SS *Newfoundland* (4) SS *Montania* (2)	SS *Stavangerfjord* (2) USNS *Point Barrow* (2)
4 July	Ice Patrol Vessel USCGC *Duane* (4) SS *Magdeburg* USNS *Pvt. McGraw*	SS *Louisa Gorthon* TWA Aircraft HMS *Bermuda* SS *Transmichigan*	SS *Otto Neubel* SS *Nady* SS *Iron Age* (5) SS *Andrea Borig*
5 July	Ice Patrol Vessel	SS *Otto Neubel*	SS *Saxonia* (4)
6 July	Ice Patrol Aircraft (21) Ice Patrol Vessel	SS *Askania* HMS *Bermuda* (5)	SS *Randcm* SS *La Cordiller* (11)
7 July	Ice Patrol Vessel C/V *John W. Mackay* SS *New York* SS *Matilda Thorden*	USCGC *Mackinac* (8) SS *Andes* (5) SS *Sunoak* USCGC *Bibb* (3)	SS *Santa Maria* SS *River Afton* (4) SS *Sunnanbris*
8 July	Ice Patrol Vessel USCGC *Mackinac* (4) SS *Transquebec*	SS *Andes* (2) USCGC *Bibb* (4) SS *Beechmore*	SS *Berkersheim* SS *Transquebec* (2)
9 July	Ice Patrol Vessel SS *Manchester Regiment* (2)	SS *Nova Scotia* (2) SS *River Afton*	SS *Cosmic* (5)

SHIPS AND AIRCRAFT REPORTING ICE, SEASON OF 1959 Continued

Date			
10 July	Ice Patrol Vessel SS *Berkersheim* (3)	SS *Korbach* (16) SS *Lahacienda* (5)	SS *Amsterdam* SS *Cosmic*
11 July	Ice Patrol Vessel SS *Stavangerfjord* (10) SS *Coolsingle* (20)	SS *Singendorg* (3) SS *Marwick Head*	SS *Pennyworth* (2) SS *Asia*
12 July	Ice Patrol Aircraft (2) Ice Patrol Vessel SS *Bolivia* SS *Marwick Head* (2)	USCGC *Campbell* SS *Maasdam* SS *Asia* (23)	SS *Waldeck* SS *Duncraig* SS *Tobin*
13 July	SS *Tobin* USCGC *Campbell* (3)	SS *Oslofjord* (2)	SS *Emstein*
14 July	H/V *Gileannes*	HMCS *Restigouche* (2)	SS *Marwickhead*
15 July	Ice Patrol Aircraft (13) HMCS *Restigouche* (11)	SS *Irish Rose* (3)	SS *Bertha Entz*
16 July	HMCS *Restigouche* (9) HMS *Bermuda* (2) USAF Aircraft	SS *Eva Jeanette* (2) SS *Albano* (4)	M/V *Tweelingen* SS *Framingcourt*
17 July	SS *Italia* (5) C/V *Cyrus Field* (2)	USNS *Mirfak*	SS *Manchester Spinner* (12

ICEBERG DETECTION BY RADAR[1]

by Thomas F. Budinger

(U.S. Coast Guard)

ABSTRACT

The behavior of ice to electromagnetic radiation is analyzed to determine the reliability of radar as an iceberg detection instrument. From absolute quantitative measurements, quantitative generalizations, and theoretical considerations the following results were obtained:

1. Iceberg ice on the Grand Banks has a reflection coefficient of approximately 0.33 and reflects radar waves 60 times less than a ship of equivalent physical cross-sectional area.

2. The maximum range of radar contact is proportional to the fourth root of the physical cross-sectional area of icebergs. A statistical relation derived from 152 observations shows that growlers normally cannot be detected at ranges over 4 miles.

3. The Grand Banks and contiguous areas of the North Atlantic Ocean exhibit conditions of subnormal radar propagation during the spring months when fog and ice hazards are most prevalent.

4. Waves over 4 feet in height might obscure a dangerous growler even with the expert use of the FTC and STC anticlutter devices. If an ice target is not picked up beyond the sea return, it will not be detected at all and a fatal collision might result.

5. Ice is not frequency sensitive. The response of ice to S- and X-bands is the same. Furthermore, there is practically no difference in the response of sea water to S- and X-bands.

6. The use of sector scan, trained radar operators, and constant surveillance of the radar scope increases the probability of detecting ice by radar.

7. Commercial radar in common use on the ships of the world today cannot be relied upon for the detection of all dangerous icebergs or fragments thereof drifting in the North Atlantic Ocean. This instrument definitely is an aid, but it does not provide an assurance against the presence of all floating ice which might sink a ship upon collision.

INTRODUCTION

Objectives

Since the inception of radar as a means for providing safe passage at

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sea, there have been many conflicting reports on the behavior of this navigational aid as an instrument for ice detection. These reports together with the increased speed of merchant ships and increased usage of radar have emphasized the need for precise and trustworthy information on the reliability of radar as an ice detection instrument. The primary objective of this investigation is to determine the behavior of floating ice to electromagnetic irradiation and thereby assess the efficiency of radar in providing safe navigation through potential ice areas of the North Atlantic Ocean. To attain this goal both field and theoretical research were conducted in a controlled quantitative analysis of the various parameters of radar characteristics, target characteristics, meteorology, and sea conditions.

Shipboard X-band radars of known overall performance were tested on icebergs and berg fragments of different sizes and shapes under varying conditions of sea and weather. Quantitative measurements of reflected power from icebergs and sea waves were made on board the U.S. Coast Guard Cutters *Acushnet*, *Androscoggin* and *Evergreen*; and qualitative observations of the maximum range of detection were made by participating merchant, U.S. Naval, and U.S. Coast Guard vessels. The results and interpretations of these observations together with an evaluation of the effectiveness of anticlutter devices in the discrimination of ice echoes from sea return are presented in this report.

Previous Work

The method for quantitative analysis of the ability of radar as an ice detection instrument was devised and field work carried out on the Grand Banks and adjacent iceberg areas during 1945 by the Ice Information Group, Task Group 24.7 [*1*]. This work was supplemented by investigations in 1946 by the International Ice Patrol [*2*]. The reports of these investigations were recently declassified and have been revised and consolidated by the International Ice Patrol in May 1959 [*3*]. Qualitative analyses of radar ice reports submitted by Hudson Bay shipping were made by the National Research Council of Canada during 1953 to 1957 [*4*]. The results of these surveys and additional reports from merchant ships transiting ice areas indicate that growlers are inconsistent targets, and that vessels relying on radar for safe navigation through ice infested areas might, in so doing, compromise their safety. It has been established that in calm or slight seas dangerous ice formations of all types should be detected at ranges varying from 10–15 miles for icebergs to 2–3 miles for small growlers and sea ice; however, during moderate and rough sea conditions when sea clutter extends beyond 2 miles on the PPI presentation, growlers large enough to cause serious damage to ships might not be detected. In view of the recent advances in radar systems and anticlutter circuitry and the need for a quantitative evaluation of radar reliability and anticlutter device effectiveness which could be promulgated to the marine world, the present investigation was undertaken.

Acknowledgments

This investigation was initiated by the Commandant of the United States Coast Guard and its performance came under the auspices of the International Ice Patrol, U.S. Coast Guard. The formative planning was accomplished through the efforts of Lt. Comdr. Paul A. Lutz, USCG, and Lt. Kermit R. Meade, USCG. These individuals together with Lt. Comdr. Robertson P. Dinsmore, Commanding Officer of the Office of the International Ice Patrol, provided the initial logistic support. Through the efforts of LCDR Dinsmore, who made arrangements for ship support and enlisted aid from various sea-going agencies, the field program progressed with a high caliber of organization. The writer is deeply grateful for the encouragement and facilities provided by the U.S. Coast Guard headquarters, the International Ice Patrol, and the First Coast Guard District. Without the cooperation from Coast Guard Ocean Station Vessels, military and merchant ships, this program could not have progressed. In particular, the cooperation of the Commanding Officers and the conscientious observations of the officers and men of the USCGC *Acushnet*, USCGC *Androscoggin*, USCGC *Evergreen*, and USCGC *Westwind* are acknowledged. The suggestions and criticisms of Comdr. George C. Fleming, USCG, Lt. Comdr. Paul A. Lutz, USCG, and Lt. Kermit R. Meade, USCG aided in the preparation of the manuscript.

COLLECTION OF DATA

Field Observations

There were two data collection programs:

1. Quantitative observations of the reflected power from ice targets of varying sizes and shapes under known overall radar performance and radar propagation conditions, and evaluations of the effectiveness of the common anticlutter devices documented by PPI photographs were made by International Ice Patrol vessels.

2. Qualitative observations of the maximum range of detection of icebergs and growlers were submitted in the form of completed data forms by U.S. Coast Guard, U.S. Naval, and merchant ships which frequented the ice areas of the North Atlantic Ocean in 1959.

The first program was considered critical for the thoroughness of the investigation because it provided the detailed quantitative data necessary for an objective evaluation. The Ice Patrol vessels were furnished Radar Test sets for the measurements of radar overall performance and reflected power from targets. A captive balloon instrument for recording the detailed vertical temperature and humidity distribution of the atmosphere was obtained from the U.S. Navy and a Polaroid camera PPI scope mount was fabricated. In addition to 26 usable target runs and numerous sea return measurements, an extensive evaluation of the effectiveness of anticlutter devices was accomplished. The second program was expedited by the promulgation of reporting forms to ships which

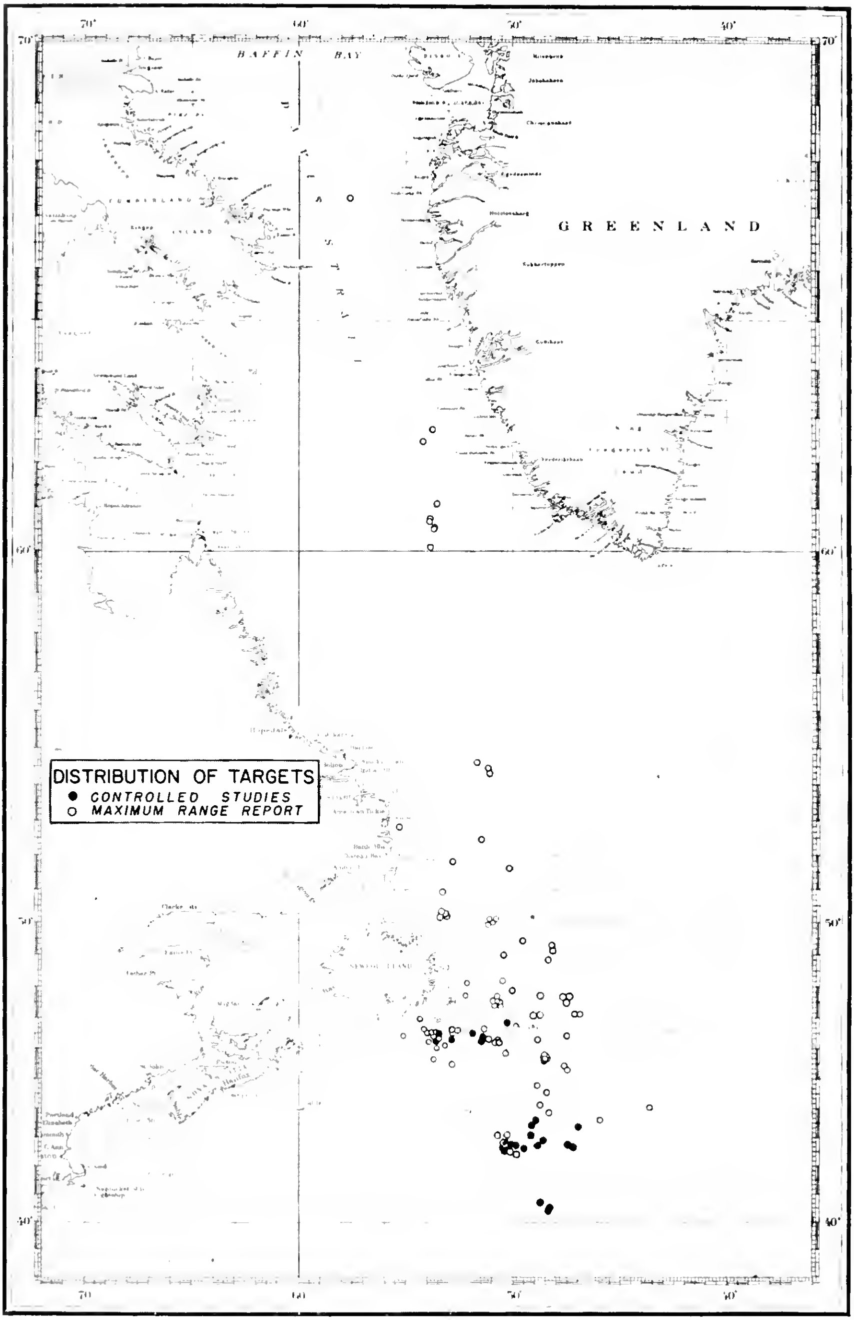


FIGURE 22. Locations of iceberg and berg fragments studied. Nineteen locations in Melville Bay and Kane Basin are not shown.

operate in potential iceberg areas. These forms required the maximum range of detection and the physical measurements of height and length together with a photograph or sketch of the aspect seen by the radar at the recorded range. Of the 191 reports submitted 138 were sufficiently complete for use in this investigation. In addition, 24 observations from 1945 were utilized resulting in a total of 152 iceberg observations included in this discussion.

Location of Targets

The locations of the ice targets studied this year are shown in figure 22. Nineteen icebergs, included in this study, which were investigated by the icebreaker, USCGC *Westwind*, north of 70° North latitude are not shown. It is important to note that most of the ice targets were in the Grand Banks region or the North Atlantic shipping lanes. The controlled quantitative studies made by the Ice Patrol cutters are distinguished by the solid circles. These observations were made from March to October 1959.

Instrumentation

The X-band Radar, model AN/SPS-23, on the Coast Guard cutters *Acushnet* and *Androscoggin* was used for the bulk of the controlled reflectivity measurements and anticlutter device evaluation. The measurements of overall radar performance and the measurements of reflected power were made by use of the Radar Test set, type TS-147D/UP. This portable, microwave signal generator provided measurements of power output, transmitter and receiver frequency, and echo signal strength of reflected power from the radar targets. The reflected power measurements were made by matching an internally generated signal of known adjustable power with the target signal on an "A" scan. A block diagram of the equipment set up is shown in figure 23. The accuracy of

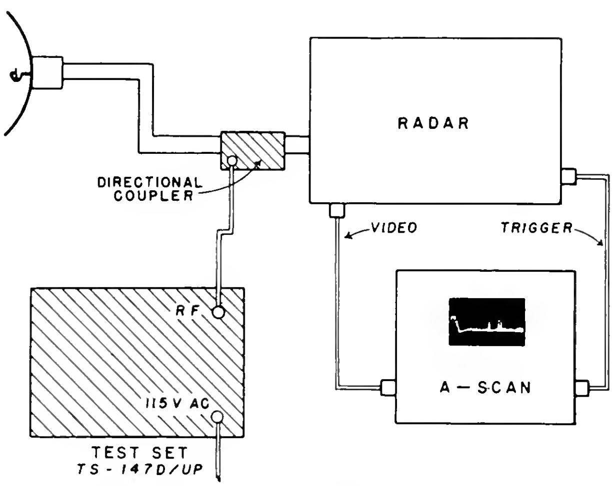


FIGURE 23.—Block diagram showing the linkage of test equipment to radar components (test set RF triggered).

power measurements was within 1.5 db and that of frequency measurements was within 2.5Mc/s. The instrument precision is considerably better than ±0.5 db and far better than the operator's judgment.

Observation Technique

The signal strength measurements were made from the maximum range of detection to the nearest practical approach (usually the upper range of the signal generator). After an iceberg target was selected, the ship steamed away from the berg on a course whose reciprocal would take it back to the target on a bearing determined by the berg aspect desired during the actual test-run. During this period the overall performance of the radar system was measured and a synthetic signal generated on the "A" scan (oscilloscope or "M" scope). When the target could no longer be discerned, the ship proceeded on the same course for a few minutes and then turned to approach the target at reduced speed (usually 6 knots). The first instant the target was painted on the PPI scope the range was recorded as the maximum range of detection and the radar antenna stopped and held on the target by manual training as necessary. For several reasons the target echo was constantly varying in amplitude and at times the scintillations were over 10 decibels in magnitude. The recorded values of reflected power are not instantaneous readings but rather the maximum signal strength observed at any time during the half minute interval ending with the time and range for which the reading was recorded. This method was inaugurated in 1945 and it is believed that a reasonable record of echo strength versus range was thus made. Continuous surveillance of the radar performance was made by test set measurements and ringing time checks. Either before or immediately after the test runs a photograph, sketch, physical dimensions and description of the berg surface were obtained. This data was used to obtain the cross-sectional area of the target presented to the radar during the test runs and to interpret the importance of morphology on signal strength. Although there was little calving noted, there was considerable change in aspect during some of the runs. Some icebergs, reaching a point of instability, rocked to and fro through an appreciable angle while others rotated. The indeterminate error of aspect change was eliminated when grounded bergs were studied.

The photographs of the PPI scope were taken with a Polaroid Land camera. Transparency film was used and the exposure time was 11 seconds. It is believed this longer exposure time on the PPI scope results in a picture which better depicts what the radar operator actually sees than the synchronized short exposures usually used.

Preparation of Results

As an investigation of this sort involves many different approaches and as many different sciences some mention of the data handling methods is necessary. The 191 observations received from all types of vessels and competencies of observers were first examined to determine if the established criteria for usable data were met. These criteria vary with the type of measurement; however, basically all accepted reports had the maximum range of detection, and sketch and/or photograph of the maximum range aspect appropriately dimensioned. Comments on anticlutter devices were neglected for the most part as the conflicting reports indicated a good deal of subjectivity. An extensive examination of the anticlutter devices documented by radar scope photographs was made by the writer on three different Ice Patrol vessels. The evaluation of the effect of sea return is based on these controlled observations on different types of ice formations under varying sea conditions and on the writers experience with three radars in the Arctic and Antarctic while in the capacity of Combat Information Center Officer on the Coast Guard Icebreaker, USCGC *Westwind*. The photographs or sketches of the 152 accepted targets were enlarged and the physical cross sections determined. The reflected power measurements and maximum range measurements were treated statistically by the method of least squares, and throughout an effort has been made to view the data objectively.

The following discussion moves from a consideration of the maximum range of iceberg detection to a discussion of iceberg reflectivity, radar propagation over the Grand Banks area, the danger of sea return, and finally an evaluation of anticlutter device effectiveness. The observational results are compared with the theoretical in each case to allow an evaluation of the conclusions. It is hoped that the reader will not be burdened by the presentation of basic concepts which underlie the many disciplines applicable to this study.

MAXIMUM RANGE OF ICEBERG DETECTION

Empirical Expression

The maximum ranges of detection for the 152 targets studied are shown in figure 24. The best fit locus of these observations by least squares analysis is the curve:

$$R^{4.06} = 3.78 \times 10^{13} A \qquad (1)$$

where R is the maximum range of detection in yards and A is the physical cross-sectional area in square feet illuminated by the radar at maximum range. This fourth power relationship is in remarkable agreement with the theoretical expression for the relation of maximum range to actual area for some geometric shapes as derived from the free space radar equation:

$$R^4 = K \times A$$

where K is a function of receiver sensitivity, antenna gain, and transmitter power output. Because the characteristics of all the radars used were very similar, this grouping of observations from various types of radars was justified. Equation (1) is an expression which relates the maximum range to be expected to the physical cross-sectional area of an

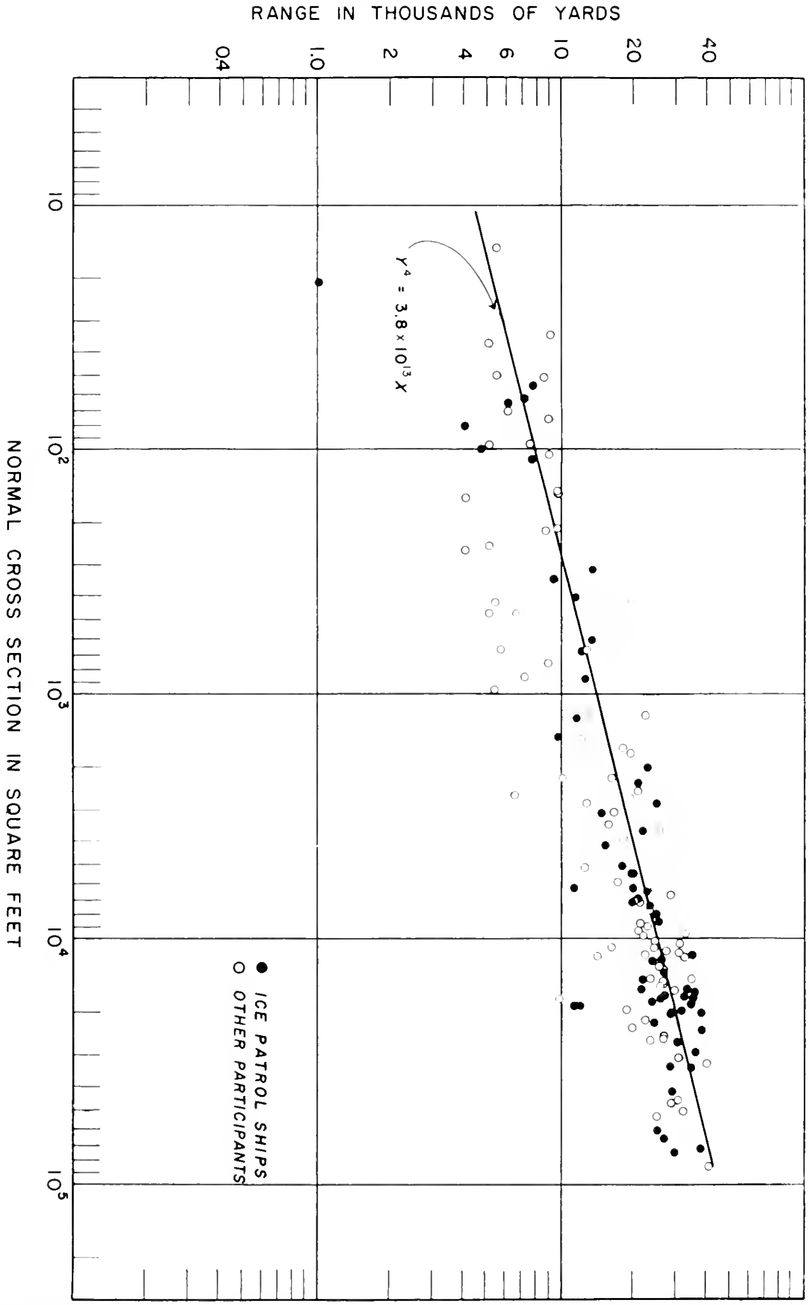


FIGURE 24.—Relation between radar maximum range of detection and iceberg physical cross-sectional area illuminated at the maximum range.

iceberg. Although the index of correlation (rho) is 0.81, the standard deviation is ±5,600 yds. A poor deviation is to be expected considering the diversified sources of information and the fact that the geometric shape and therefore target gain of icebergs changes considerably from target to target. Furthermore, from considerations to be presented later, the value of the constant 3.78×10^{13} may change considerably with the dielectric constant of the ice surface. In this respect it is important to note that 80 percent of the observations were made on icebergs which were in or approaching the shipping lanes. As will be seen later, the air temperature near a floating ice formation materially effects the range of detection; and the constant, K, should decrease with a decrease in temperature, and therefore with an increase in latitude. In figure 24 the Ice Patrol vessels' controlled observations are distinguished by solid circles. The radar overall performance during these maximum range observations was measured and found to be practically the same for all cases.

Theoretical Detection Range of Growlers

Based on equation (1) we can determine the magnitude of the maximum detection range for the most dangerous of all ice formations, growlers. Dangerous growlers from the exposed size of 10 sq. feet to 100 sq. feet (usually about 10 feet high and approximately 250 tons) can be detected at approximately 2 and 4 miles, respectively. Immediately, the danger to a fast moving vessel becomes apparent. The possibility that the curve presented in figure 24 might flatten out for the lower cross sections was precluded by examination of 26 growler observations made by Hudson Bay shipping [*4*] and 18 growler observations by the icebreaker *Northwind*. These indicate that the expected range is even lower than that presented here.

REFLECTIVITY OF ICEBERGS

Reflected Power Measurements

The behavior of ice as a reflector can best be measured by either laboratory or field observations of the quantity of power returned from an iceberg. As laboratory procedures obviate evaluation of the many parameters of reflection interference, iceberg shape, propagation, etc., it was decided to make the quantitative study of iceberg reflection on actual targets in the vicinity of the shipping lanes or similar environs where possible. The method devised in 1945, mentioned earlier, was used with few modifications. The echo signal strengths from the maximum range of detection to the upper limit of the test set were measured on 26 approaches to targets of various sizes and shapes. A typical run is illustrated in figure 25. On this large target (165 by 380 feet) duplicate runs were made to determine the precision of the observation technique. These two series of observations, indicated by open and solid circles on figure 25, show close agreement and similar results were observed on another duplicate set. The ordinate is the power received in decibels above minimum discernible signal. This method of presentation provides the best graphic illustration of what the radar operator sees while approaching a target. The slope of the least squares best fit for the two runs is -4.3 in both cases. This is in good agreement with the theoretical given by the free space radar equation:

$$\frac{P_r}{P_t} = \frac{G^2 \lambda^2 \sigma}{(4\pi)^3 R^4} \tag{2}$$

Where P_r is the reflected power received, P_t the power output, G the antenna gain, λ the wave length, σ the radar cross-section, and R the range. This equation indicates that the power received should follow an inverse fourth power law. The validity of this equation is well known for most targets, and was first demonstrated to be approximately true for ice targets in 1945 and 1946. To provide a means of observational comparison between iceberg reflected power and ship reflected power, the echo signal strength from the retreating stern of the *Evergreen* was also measured (fig. 25). In remarkable agreement with the theoretical, the best fit locus for that run has a slope of -4.0 to 18,000 yds and then changes abruptly to approximately a -8 slope. This slope change in attenuation rate is also in conformance with the theoretical. If perfect reflection from the sea is assumed at low grazing angles, then the free space radar equation (2) becomes

$$\frac{P_r}{P_t} = \frac{4\pi G^2 (h_1 h_2)^4 \sigma}{\lambda^2 R^8} \tag{3}$$

for targets at low angles (i.e. $2h_1h_2/R\lambda < 1$) where the terms have the same meaning as in (2) and h_1 and h_2 are the heights of the antenna and target, respectively. This effect is also quite apparent on most of the iceberg echo strength observations of this year and of 1945 and 1946. The few cases where the change is not noticeable can be attributed to the rough sea surface and concomitant diminished reflection reinforcement when the iceberg echo measurements were made.

The free space radar equation (2) can be further modified by a path-gain factor which is a function of the geometry of the transmission path, the electromagnetic properties of the sea, the reflective and refractive properties of the atmosphere, frequency, etc. This factor is dependent upon the specific conditions at a particular time, and in view of the generalized approach of this paper, dealing with a wide variation of propagation and sea conditions, no further consideration will be given to the path-gain factor. However, a treatment of the prevalent meteorological conditions and expected anomalies in radar propagation over the Grand Banks will be given in a later section.

Fluctuating Echoes

There was considerable concern over the rapidly fluctuating signal and early in the field work a study was made to determine the time variations

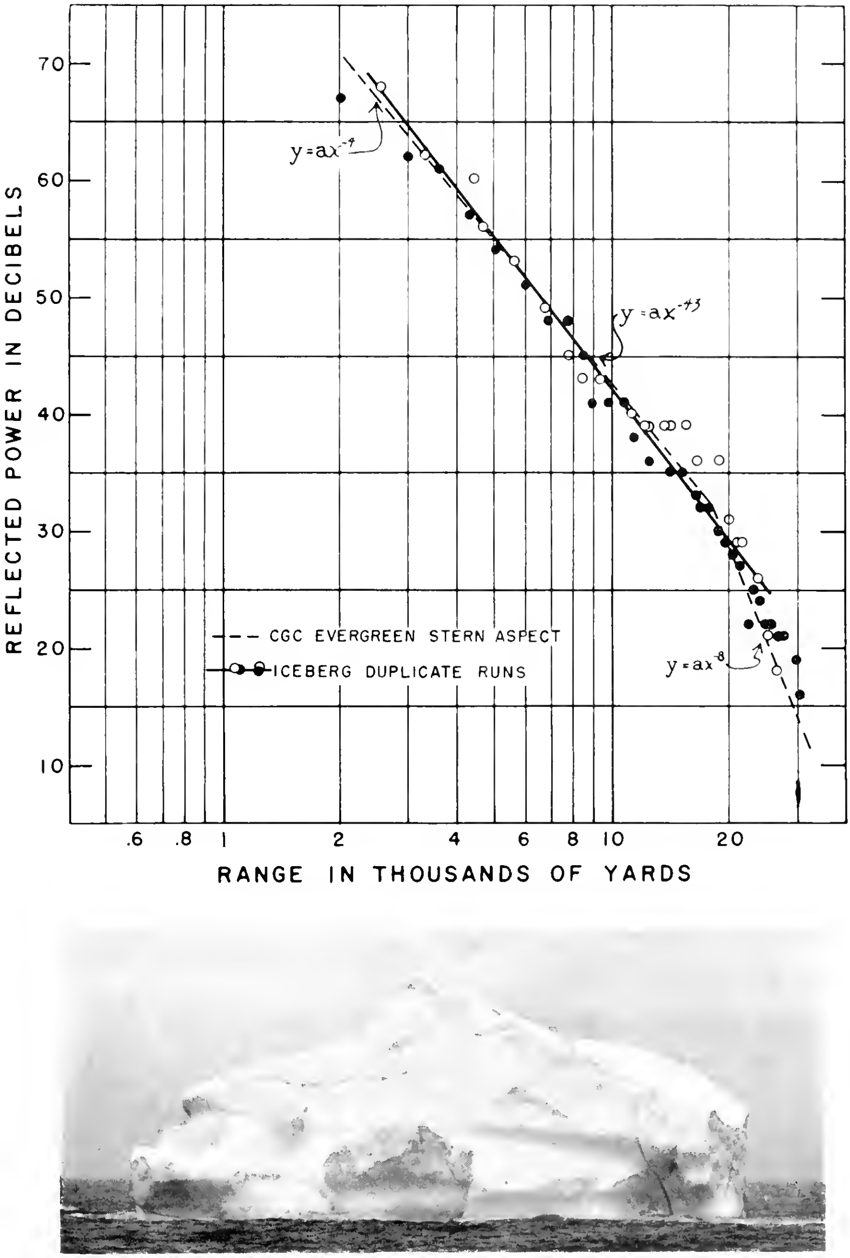


FIGURE 25.—Reflected power expressed in decibels above minimum discernible signal plotted as a function of range, logarithmic scale, for a large iceberg (43,900 sq. feet) and the stern of the CGC *Evergreen* (740 sq. feet). The agreement between duplicate runs on the same aspect (165 by 380 feet) and the similarity of iceberg attenuation rate with that observed on a ship target are illustrated by least squares, best fit curves.

of the maximum echo strength received at a constant range. Measurements were made both on the first field trip by the writer and again during the latter part of the field work by personnel experienced with the procedure. The fluctuation amplitude of these measurements agreed in both cases and the results of the latter observations are shown in figure 26. The bottom curve is the top curve normalized to a constant range of 13,150 yards by equation (2). The mean deviation, regardless of sign, for these 24 normalized observations is 1.9 decibels. During the observation period the wind increased from 16 kts at 1230 to 20 kts at 1400, and decreased to 8 kts at 1500. There is a slight correlation between the weather conditions and the trend of the fluctuations and it is believed that a change in the path-gain factor can partly account for the increased amplitude of fluctuations between 1400 and 1500. A comparison of the observations of figure 26 with those made by the Radiation Laboratory, Massachusetts Institute of Technology, indicates that these fluctuations are certainly within the expected magnitudes. It is concluded that, although the measurement procedure is at best rather coarse, major trends in propagation anomalies and changes should be detected by the technique of matching the echo observed over a 30-second period. This time series indicates, also, that the time-space fluctuation of an iceberg echo is comparable to that from a ship. The micro scintillations were not measured.

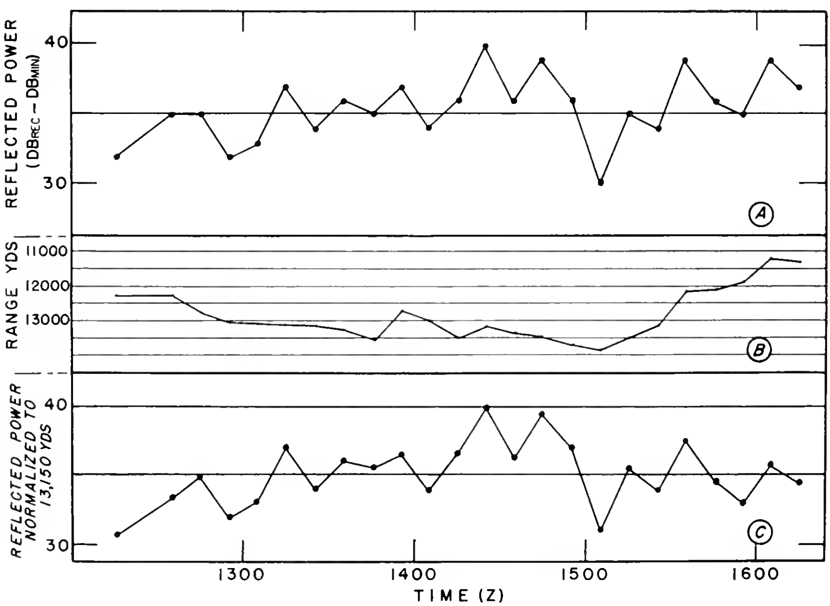


FIGURE 26. Time series observations of reflected power at near constant range and aspect from an ice formation. Curve A is the actual observation, B the change in station on the target, and C the power curve normalized to constant range.

Iceberg Effective Echoing Area

In the free space radar equation:

$$\frac{P_r}{P_t}=\frac{G^2\lambda^2\sigma}{(4\pi)^3R^4} \qquad (2)$$

The term σ is defined as the effective echoing area or the radar cross section and has the dimensions of length squared. This parameter may be thought of as the area of a perfectly conducting sphere which is equivalent to the echoing strength of the target; or, as the effective scattering cross section which a target would have if it scattered as much energy in all directions as it actually does scatter in the direction of the radar receiver. The dependence of the radar cross section on the shape of a target is best illustrated by considering that the radar cross section of a large metallic plate placed perpendicular to incident radiation is 1,200 times that of a sphere of equivalent area. The radar cross section of a battleship is approximately 3.2×10^7 sq. feet and that for a 10,000 g.r.t. merchant ship approximately 1.2×10^4 sq. feet. The value of σ, for a given shaped target may not vary in direct proportion with its projected area; in fact, the direct variation is true only for a few simple geometric forms (i.e. sphere, curved surface).

Seemingly the task of analyzing the aspect of the iceberg targets is an insurmountable one in view of the fact that the micro and macro morphology of icebergs varies considerably from berg to berg and unquestionably no two bergs are alike. The theoretical computation of the effective echoing area based on the geometrical shapes involved is neither meaningful nor feasible for icebergs. However, as the effective echoing area does provide an excellent means of evaluating ice as a radar reflector it was desirable to determine the magnitude of this parameter. Not until the empirical relation between the maximum range of detection and the physical cross-sectional area was derived was it possible to attempt this.

Iceberg Ice Reflection Coefficient

Because the correlation ratio for the empirical relation (1):

$$R^4=3.8\times10^{13}A \qquad (1)$$

is 0.81, we may assume that the theoretical fourth power relation between range and actual cross-sectional area is true for icebergs. However, as mentioned earlier, only a few geometrical shapes show a direct variation of the effective echo area with the actual area. The sphere segment has a radar cross section given by

$$\sigma=\pi r^2 \qquad (4)$$

where σ is the radar cross section and r is the radius of the perfect conductor. The segment may be viewed either on the concave or convex side.

Equation (4) is also valid for a nonspherical curved surface, in which case r is the geometric mean of the two principal radii of curvature. These shapes adhere to this direct relationship if the diameter of the shape perpendicular to the incident beam is greater than the incident wave length. A direct relationship also exists between the disc at random orientation and its radar cross section and it can be shown [5] that the average effective echoing area of simple shapes in random orientation is given by:

$$\sigma = 0.5A$$

where A is the total physical cross-sectional area of the aggregate of surfaces. It is not difficult to imagine the face of an iceberg as being shaped similar to an aggregate of concave and convex curved surfaces of diameter greater than 1.3 inches (X-band wave length); in fact, the processes of melting leave an iceberg with a pocked-like micro morphology. Based on these arguments an idealized iceberg model surface may be defined as an aggregate of perfectly conducting surfaces larger than 1.3 inches in diameter. The reflection coefficient of these conducting shapes is 1.0 and the ratio of effective echoing area to cross-sectional area is given by:

$$\frac{\sigma}{A} = 0.5 \qquad (5)$$

These considerations lead to the computation of iceberg effective area coefficient and reflection coefficient. At the maximum range of detection the free space radar equation becomes:

$$\frac{P_{min}}{P_t} = \frac{G^2\lambda^2\sigma}{(4\pi)^3 R^4_{max}} \qquad (6)$$

where P_{min} is the minimum discernible signal. Substituting equation (4) for R_{max} and transposing we have the expression for the ratio of effective echoing area to actual area:

$$\frac{\sigma}{A} = \frac{P_{min}(4\pi)^3 K}{P_t G^2 \lambda^2} \qquad (7)$$

By substitution of the following average values for terms:

Absolute Antenna Gain	$= 10^3$
Wave length	$= .032$ meters
P_{min}	$= 10^{-12}$ watts
P_t	$= 10^{+4}$ watts
K	$= 3.8 \times 10^{13}$ yd^4 ft^2
	$= 2.85 \times 10^{14} m^2$

this expression becomes

$$\frac{\sigma}{A} = 0.056. \qquad (8)$$

It is immediately apparent that the reflectivity of icebergs is indeed poor as the same ratio for a flat metal plate is equal to 1,200.

The reflection coefficient (ratio of reflected energy to incident energy) can be computed as follows. The effective echo area is proportional to the power ratio as seen from equation (7). But the power ratio is proportional to the square of the field intensity; therefore, we can write:

$$\frac{\dfrac{\sigma_i}{A_i}}{\dfrac{\sigma_m}{A_m}} = \frac{|R_i|^2}{|R_m|^2} \tag{9}$$

where R_i and R_m are the reflection coefficients of the real and idealized icebergs, respectively. Taking into account the average aspect reflection for the model conducting iceberg and the Grand Banks icebergs, and substituting 1.0 for R_m, equation (9) becomes

$$R = 0.33$$

where R is the average reflection coefficient of Grand Banks and North Atlantic Ocean iceberg ice. Confidence in the arguments used to arrive at this coefficient is given by its close agreement with the theoretical values of 0.25 for a dry iceberg and 0.32 for a melting iceberg derived below.

Theoretical Reflection Coefficient

As has been shown the computed reflection coefficient from various arguments based on field observations is 0.33. It remains to compute the reflection coefficient based on theoretical considerations. Either by consideration of Fresnel's equations or the intrinsic impedance derived therefrom, the reflection coefficient at normal incidence becomes

$$\frac{\sqrt{\epsilon_2} - \sqrt{\epsilon_1}}{\sqrt{\epsilon_2} + \sqrt{\epsilon_1}} = R = \frac{Z_2 - Z_1}{Z_2 + Z_1} \tag{10}$$

where ϵ is the dielectric constant, Z the intrinsic impedance, and R the reflection coefficient modulus. The electromagnetic properties of a medium are completely described by the complex dielectric constant:

$$\epsilon_c = \epsilon_r - j\epsilon_i = \epsilon_r - 2j\frac{K}{f} = (n - j\zeta)^2 \tag{11}$$

where

ϵ_c = the complex dielectric constant or complex relative permittivity
K = conductivity in electrostatic units
f = frequency in cycles per second
n = refractive index
ζ = absorption coefficient

The anomalous dispersion of radio frequencies exhibited by polar molecules has been discussed by Debye [*6*] and others; and it has been shown that the water molecule shows anomalous dispersion in the frequency range 10^3 to 10^6 Mc/s [*7*]. However for ice, the maximum dispersion is near 6 Kc/s at a temperature of $-2°$C. and occurs at even lower frequencies as the temperature decreases; and the observations of Errera [*8*] in the frequency range between about 0.4 Kc/s to 37.5 Kc/s indicate that ice behaves as if it were a polar liquid with very high internal friction. However, by use of the formulae Debye [*6*] presented to calculate the generalized dielectric constant (liquid formula) we find that the imaginary part of the complex dielectric constant, ϵ_i, becomes nearly zero in the frequency range above 1000 Mc/s. As Saxton [*9*] has summarized, the most recent observations of Lamb [*10*] together with those of Smyth and Hitchcock [*11*] indicate that the dielectric constant of pure ice is 3.05, and as no absorption band exists between 30 Mc/s and 30,000 Mc/s (the upper limit of observations) this value may be assumed constant and equal to 3.05 in the radar bands. It is therefore easily derived from equation (11) that there should be no difference in the behavior of S- and X-band frequencies on ice. By equation (10) the reflection coefficient of pure ice is 0.272.

However, iceberg ice is far from pure, being composed of up to 15 percent co-volume of air and varying amounts of melt water depending on the meteorological conditions. As far as the writer is aware, there are no direct measurements of the dielectric properties of aerated ice, iceberg ice, or snow. It is important to determine the importance of the air and melt water effects on the magnitude of the reflection coefficient in order to assess the most probable theoretical value for icebergs. In order to do this it is necessary to make certain assumptions concerning the characteristics of the ice-air-water mixture on the surface of a Grand Banks iceberg. First, it is assumed that the mixture of ice and air is homogeneous and the internal force of the "particles" is zero; the latter is true in the case of a cubic crystal or non-associated liquids [*12*]. Based on the assumption that the internal force is negligible and that Mosotti's computations are correct; i.e., the relation between the dielectric constant and molecular polarizability is given by

$$\frac{\epsilon-1}{\epsilon+2}=N\frac{4\alpha}{3\pi} \qquad (12)$$

where N is Avagadro's number, and α is the molecular polarizability, Debye [*6*] derived an expression for the relation of the dielectric constant to the polarization of the components of a binary solution:

$$\frac{\epsilon-1}{\epsilon+2}\cdot\frac{M_1 f_1+M_2 f_2}{p}=P_1 f_1+P_2 f_2 \qquad (13)$$

where M_1 and M_2 are the molecular weights of the two components, f_1

and f_2 the mole fractions, p the density, and P_1 and P_2 the polarizability From equation (12) we can derive

$$P=\frac{M(\epsilon-1)}{p(\epsilon+2)};$$

therefore,

$$\frac{\epsilon-1}{\epsilon+2}\cdot\frac{M_1f_1+M_2f_2}{p}=\frac{M_1f_1}{p_1}+\frac{M_2f_2}{p_2} \qquad (14)$$

which is an expression for the relation of the resultant dielectric of a mixture to the concentration of two components. This equation is applied below to the two-phase system of air-ice and to the three-phase system of air-ice-water. The latter, of course, predominates on the surface of Grand Banks and North Atlantic Ocean icebergs. The assumptions prohibit a precise quantitative determination of the reflection coefficient, and the results of computations based upon equation (14) can be expected to indicate only the magnitudes of the effects of air and water contamination of pure ice. The values for the terms in equation (14) are known with some degree of accuracy however. The entrapped air is known to have the same composition as the atmosphere, and is normally under a slight pressure. The sublimation of the ice surrounding an air "particle" would provide the maximum vapor pressure of moisture and at 0°C the density of the entrapped air becomes 0.00132 gms/cc and the "molecular weight" very nearly 30. The density of pure ice is 0.9167 gms/cc and the relative permittivity is 3.05. Based on these quantities and equations (10) and (14), the lower portion of the curve presented in figure 27 was constructed. As the second-right term of equation (14) becomes zero for all practical purposes in the case of air and ice mixture, examination of the curve reveals the relation between ice density and reflection coefficient is very approximately given by

$$R=0.029p \qquad (15)$$

The measurements of iceberg density by Barnes [*13*], Smith [*14*], the writer, and others indicate that a density of 0.86 gms/cc is close to the mean. At this density the reflection coefficient is 0.26 (slightly lower than that for pure ice). This simple relation between reflection coefficient and density seems to fit the observations for snow covered forests, and frozen muskeg and gravel measured from aircraft [*15*]. However, the simple mixture of ice and air is rarely met on an iceberg approaching or in the shipping lanes. As the ice begins to melt the presence of even a small amount of liquid water becomes of considerable importance. The problem of melt water was handled by the same arguments used for the air-ice system. The upper portion of the curve in figure 27 was derived using aerated ice of 0.86 density as one component and pure water as the other in equation (14), and a modulus of 80 for the complex dielectric constant

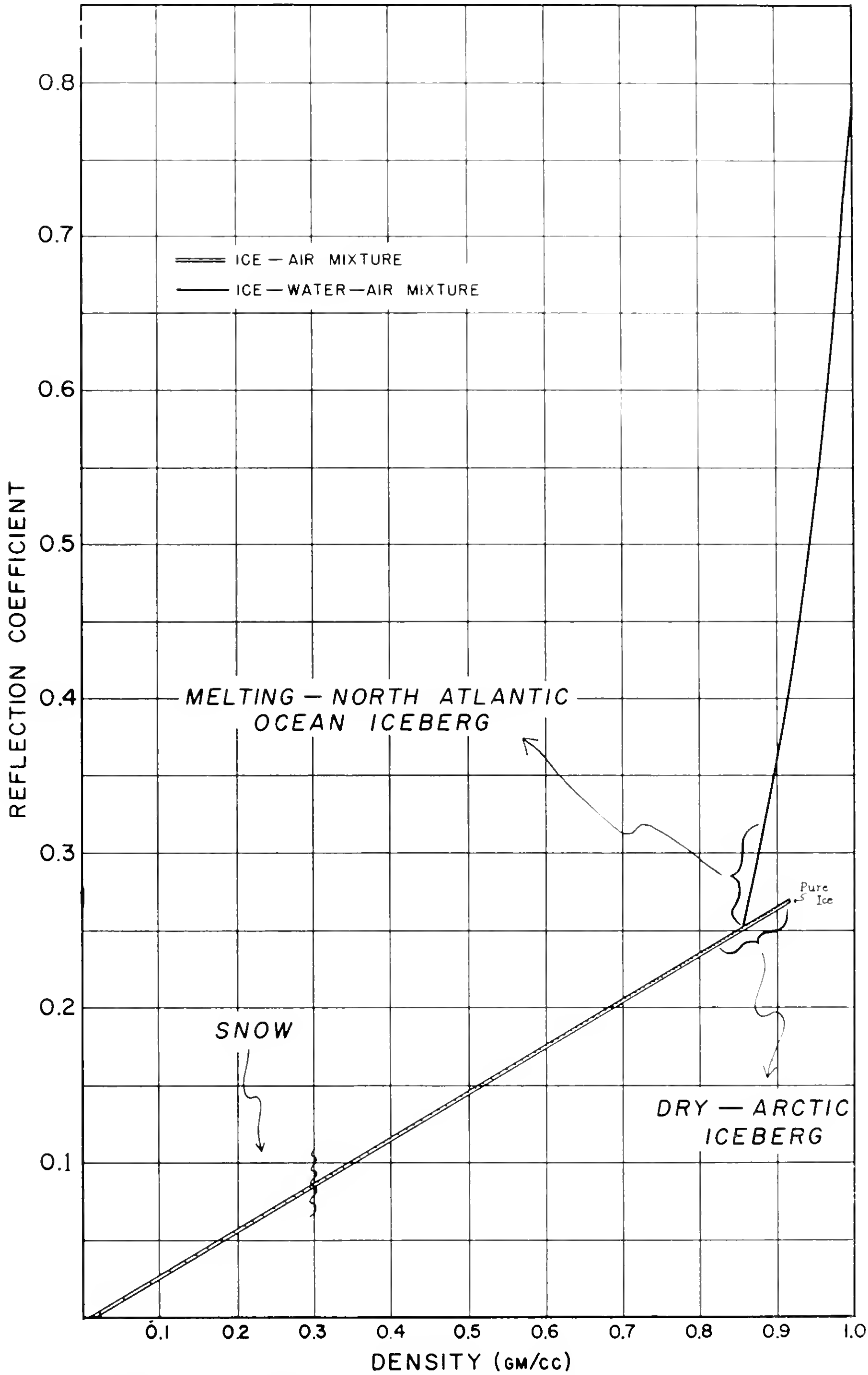


FIGURE 27.—Relation between ice density and reflection coefficient. Lower curve represents ice-air mixture and upper curve represents ice-air-water mixture.

of fresh water. From the upper portion of figure 27 it is readily apparent that the reflection coefficient increases rapidly with addition of melt water. A wet iceberg might be considered to have a surface consisting of approximately 15 percent water by volume. This corresponds to a reflection coefficient of 0.32. In the above arguments the reflection from the surface veneer of melt water is neglected as field observations indicate that the thickness of this melt water rarely exceeds that of $\frac{1}{4}$ wave length (0.3 inches for *X*-band and 1.0 inches for *S*-band). The theoretical results shown in figure 27 are in good agreement with the computed value of 0.33 based on the maximum range of detection.

It follows from the foregoing that insofar as the mean temperature is considered a function of latitude the reflection coefficient and therefore the maximum range of detection might decrease with increasing latitude and cloud cover. It should be noted, also, that the precipitation of moisture from fog on a cold iceberg might lead to increased ranges.

Qualitative Comparison Between Iceberg and Ship Reflection

Both approaches to the determination of the reflection coefficient presented above either are purely theoretical or make assumptions which cannot readily be proved valid or otherwise. The most straightforward approach is to compare the reflection from a ship to that from an iceberg, the comparison being made under identical atmospheric or propagation path conditions. On three occasions the echo from a ship and an iceberg at nearly the same range were photographed on the PPI presentation. Two of these occasions are shown in figure 28.

Figure 28 (top) illustrates the relative intensities of an echo from an iceberg (010°T; 18,200 yds) and a merchant ship, SS *Mormacpenn* (047°T; 19,000 yds) on the 20-mile range scale. The illuminated cross section of the iceberg (90 by 460 feet; 22,680 sq. feet) was approximately 46 times that of the ship, however the blip intensity was considerably less. On another occasion shown by figure 28 (bottom), the USNS *Alatna* (341°T; 6,000 yds) was photographed with a large iceberg (150°T; 7,000 yds). Here again, although the area of the iceberg (150 by 400 feet; 20,600 sq. feet) was 34 times that illuminated on the *Alatna* (6,000 sq. feet), the berg blip was less intense.

Quantitative Comparison Between Berg and Ship

Although the qualitative evidence supports the reflection coefficient computations it remained to make a quantitative measurement of the comparison between an iceberg and a merchant vessel. The reflection coefficient could not be determined due to the difference in geometry and therefore gain of the two types of targets; however, direct measurement of reflected power from a ship and iceberg would afford a means of comparing the radar cross sections of the two objects.

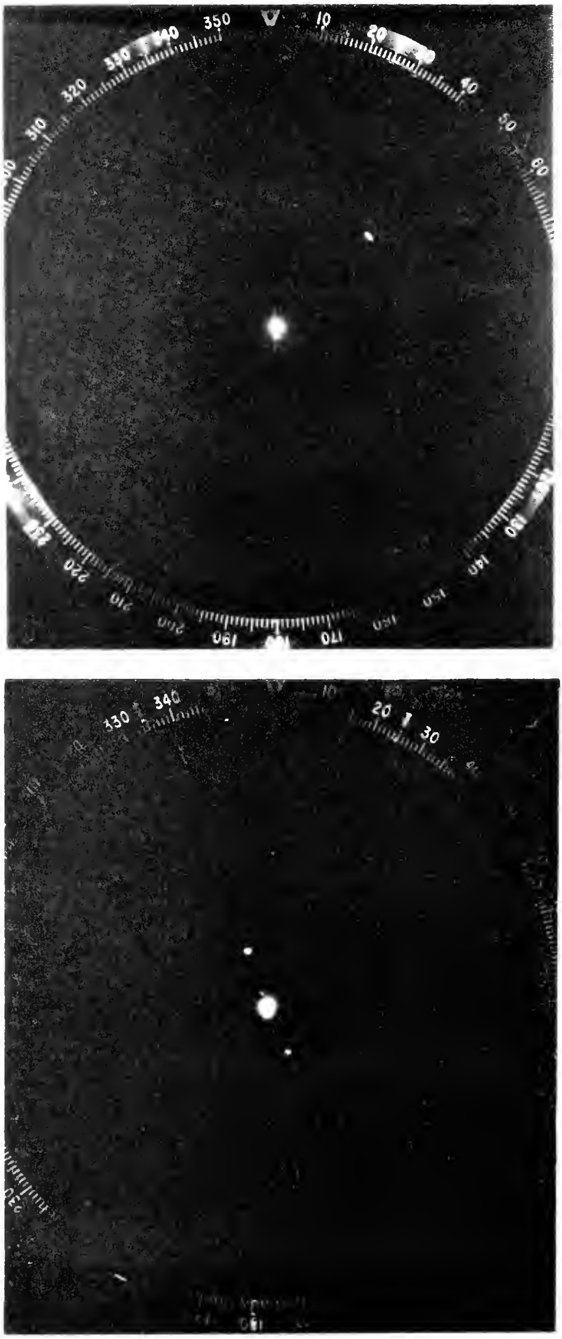
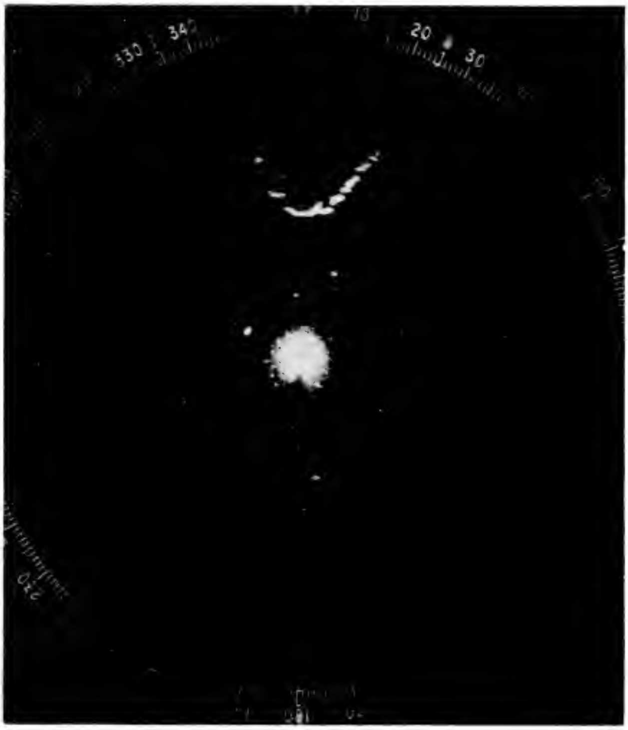


FIGURE 28 Comparison between blip intensities of ships and icebergs. Top radar scope photograph shows an iceberg (010°T; 18 200 yds) and a merchant ship, SS *Mormacpenn* (047°T; 19,000 yds) on the 20-mile range scale. Bottom photograph compares a large iceberg (150°T; 7,000 yds) with the USNS *Alatna* (311°T; 6 000 yds).

On the night of 27 May a fortunate circumstance arose. While making the first time-series observations of reflected power fluctuations 9 miles south of Cape Race, Newfoundland; the Canadian tanker, SS *Imperial Sarnia*, appeared as a target among the three icebergs shown in figure 29. When this vessel (295°T; 8,200 yds) approached the same range from the research ship CGC *Androscoggin* as the iceberg (355°T; 8,200 yds), the echo strength from both targets was measured. The reflected power curve for the iceberg is shown in figure 30. The ratio of the power re-



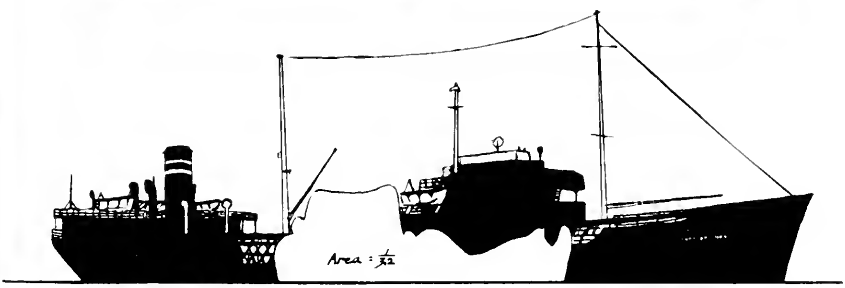
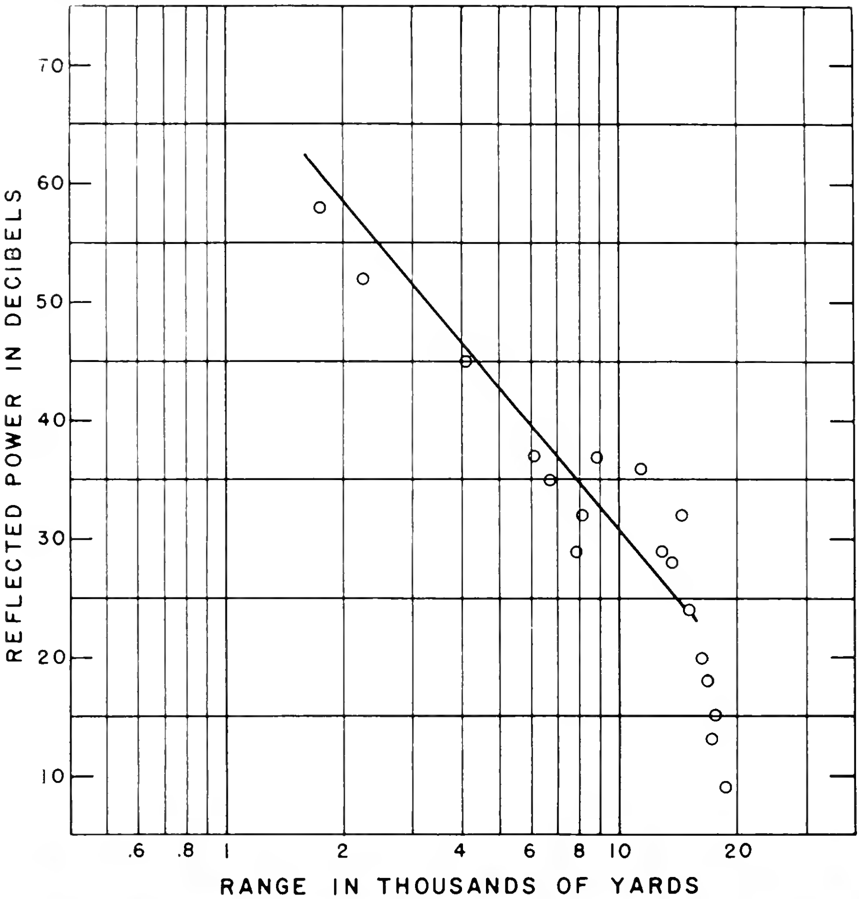


FIGURE 29.—Comparison between the blip intensity of a ship, SS *Imperial Sarnia*, with that of an iceberg (27 by 84 feet; 1,460 sq. feet) and Cape Race, Newfoundland (vertical cliffs approx. 300 feet) on the 20-mile scale. The ship is at 295°T; 8 200 yds iceberg at 355°T; 8 200 yds, Cape Race north at 18,000 yds, and other targets are large icebergs.

ceived from the ship to that received from the iceberg was 200 but because the illuminated ship cross-sectional area was 3.2 times that of the iceberg (c.f. fig. 29) and because a linear relation has been shown to exist



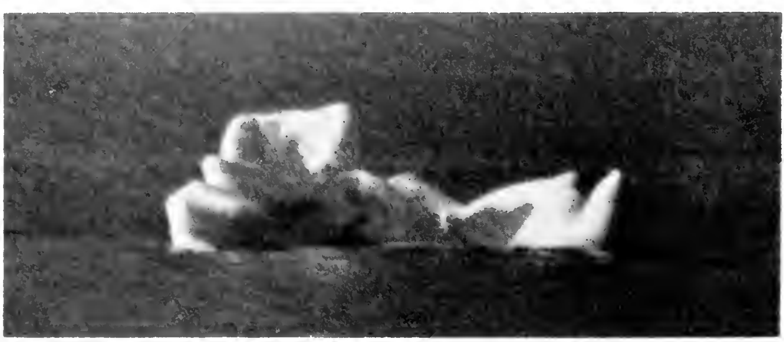


FIGURE 30. Reflected power expressed in decibels above minimum discernible signal plotted as a function of range for a small iceberg (27 by 84 feet; 1,460 sq. feet). Locus is least squares best fit.

between iceberg radar cross section and actual cross section, this power ratio becomes 62.5 for equivalent area targets. By consideration of equation (2) it is evident that this ratio represents the ratio of effective echoing areas for equivalent-sized ship and iceberg targets. In other words this ship reflected 62 times better than an equivalent size iceberg. Although this value seems high a similar approach to the comparison of effective echoing areas by more reliable observations gives similar results. Examination of figure 25 reveals that the reflected power curves for both the stern of the CGC *Evergreen* (740 sq feet) and the large iceberg (43,900 sq. feet) are practically identical. The ratio of areas is 59.

Reflectivity Summary

From the above considerations we can arrive at the conclusions that iceberg ice has a low reflection coefficient very approximately 0.33 and that this coefficient might increase with the addition of melt water; and that Grand Banks icebergs appear to reflect 60 times (16 decibels) less than a ship of equivalent area.

ASPECT

The fraction of the power incident upon a target which will be returned to the radar antenna is dependent on a parameter involving the dimensions and orientation of the target, and usually the wavelength of radiation. In this discussion we shall speak of both the radar cross section (equivalent echoing area) and the target gain. Target gain may be thought of as the degree to which a target directs the radar beam back to the receiver and is proportional to the radar cross section, i.e.:

$$G_r = \frac{\sqrt{4\pi\sigma}}{3\lambda}$$

The dependence of these parameters, and therefore the reflected power, on target orientation or aspect is very great, and the reflected power from less complex targets than icebergs has been reported to change as much as 20 decibels with a change of orientation of only few degrees. The computation of radar cross sections for targets of complicated geometric design is one that has repeatedly defied attempts of thorough analysis, although recently the use of computers has allowed the problem to become feasible. As no two icebergs or iceberg orientations are similar it would be fruitless to compute the theoretical radar cross section for one or many icebergs. Fortunately, as shown earlier the complex nature of the iceberg aspect problem was simplified by the discovery of the direct relation between the radar cross section and the actual cross section. The quantitative generalization of this problem has many exceptions. An iceberg with a smooth and vertical face (c.f. fig. 31) normally conforms to the relations derived earlier; however, the icebergs of complex configuration show deviations which at times are quite remarkable, but in general conform qualitatively to what might be expected. Of interest in this respect is the large pinnacled iceberg whose shape might lead to di-

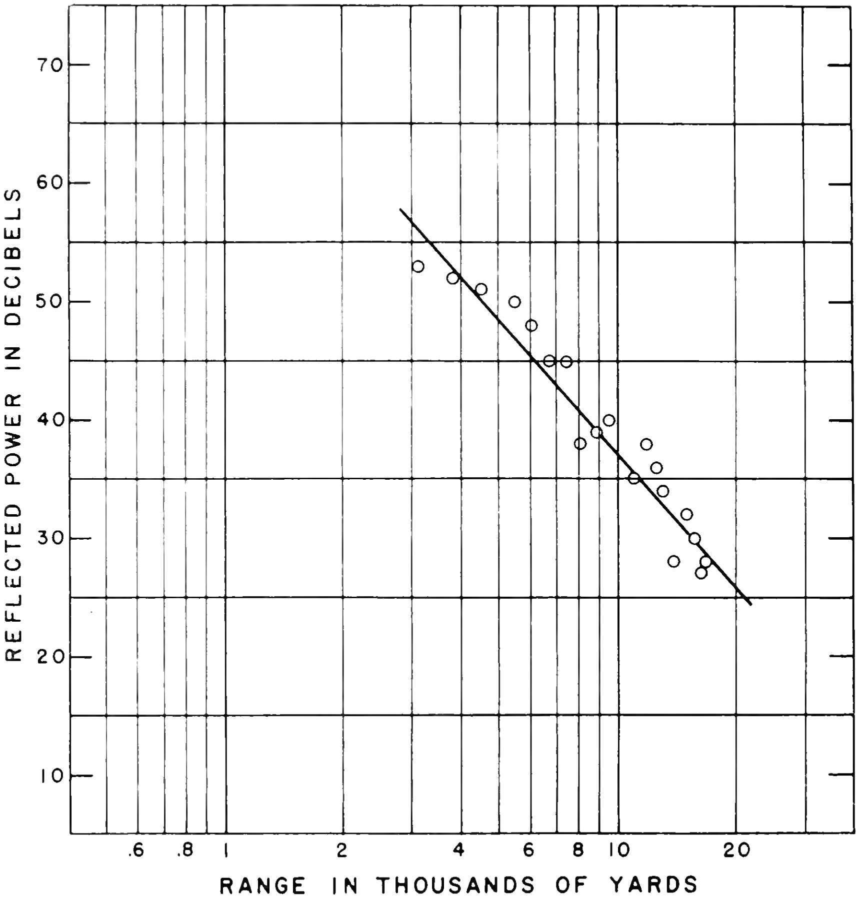


FIGURE 31. Reflected power expressed in decibels above minimum discernible signal plotted as a function of range for vertical face aspect of the large iceberg (80 by 334 feet; 18,040 sq. feet).

rectivity of the reflected power with a resulting rapid increase in the echo strength with decrease in range. This was, in fact, the case as shown by figure 32. The locus of these observations shows an inverse sixth power attentuation with range. The other shape which is an exception to the idealized model iceberg equations is the wedge- and subdued dome-shaped iceberg or growler. Reduced ranges are to be expected for these shapes, and on five documented occasions, low domes- and or wedge-shaped growlers were not detected by radars in peak condition operated by the writer or experienced radar operators.

GRAND BANKS RADAR PROPAGATION

Meteorology

In many instances those conditions which give fog and create the most need for radar also cause subnormal propagation of radar waves. When moist warm air from the Gulf Stream, or Atlantic Current continuation thereof, flows over the colder water of the Labrador Current and Grand Banks, advection fog normally results. This is a common occurrence in the Grand Banks area during much of the ice hazard season. In fact, the Grand Banks off Newfoundland and the potential iceberg drift area of the North Atlantic Shipping Lanes are the poorest visibility areas of all the oceans during the entire year with the exception of an area south of the Kamchatka Peninsula, Pacific Ocean, during June, July and August [*16*]. The advection fog is often accompanied by strong southerly winds and concomitant radar sea return. The combination of fog, moderate winds and derelict hazard is the rule rather than the exception; and consideration should be given to atmospheric conditions of an area being transited before the reliance of radar is evaluated. Although the average propagation conditions on the Grand Banks has not been determined yet; a qualitative discussion of this important topic is given below.

Radar Propagation

Under "standard" atmospheric conditions, air temperature and moisture content decrease uniformly with height above the sea surface resulting in a uniform decrease in the index of refraction. This standard rate of variation in refractive index is given by

$$\frac{dn}{dh} = -0.039 \times 10^{-6} \text{ per meter.}$$

Because microwaves bend toward a level of relatively higher index of refraction, radar waves bend downward in the standard atmosphere. This downward curvature of approximately $\frac{1}{4}$ the earth's curvature results in an extension of the radar horizon to about 15 percent more than the geometric horizon or about 8 percent more than the visual horizon. Whenever the rate of variation deviates considerably from the standard rate either by deviation in slope or in linearity, changes occur which might prove either favorable or unfavorable for radar propagation. The relation of temperature, partial pressure of water vapor, and atmospheric

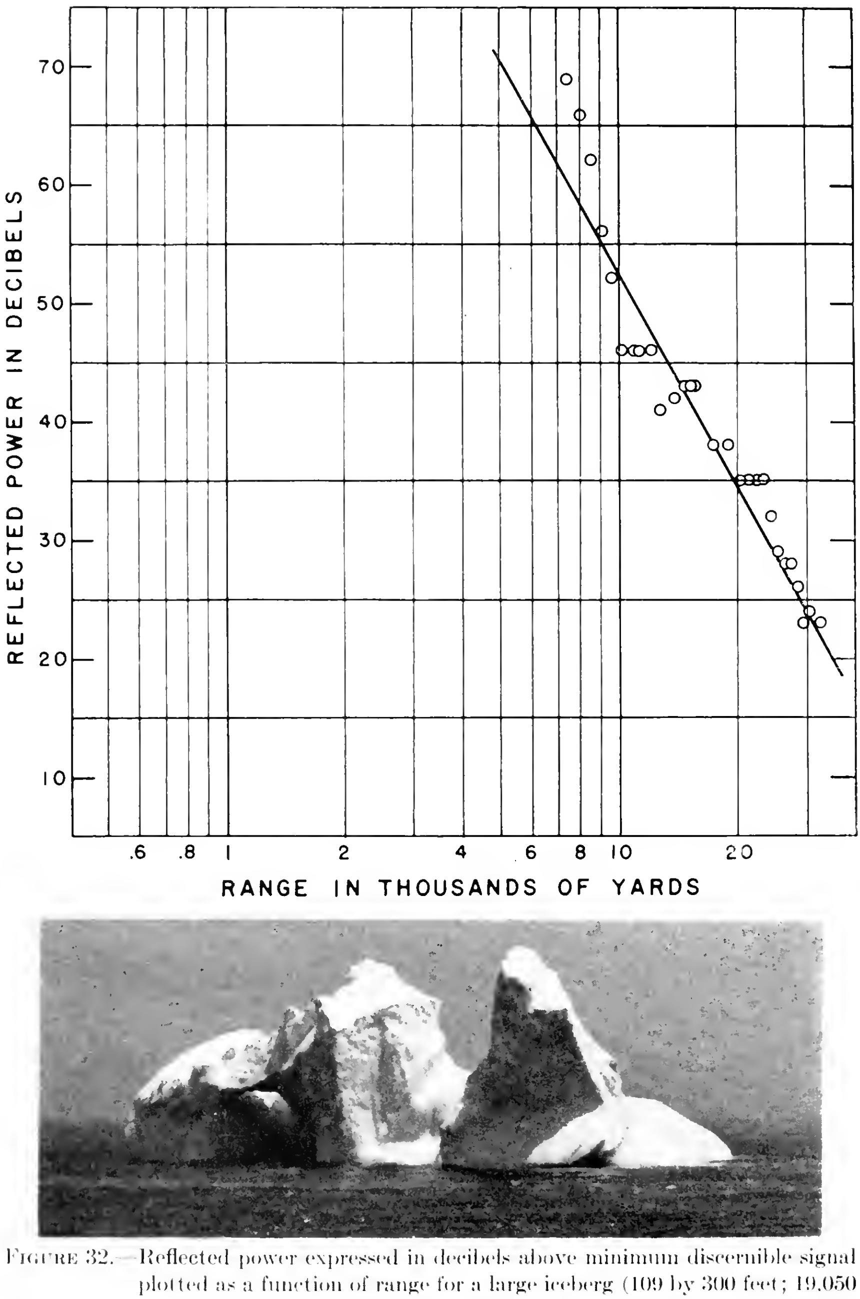


FIGURE 32.—Reflected power expressed in decibels above minimum discernible signal plotted as a function of range for a large iceberg (109 by 300 feet; 19,050 sq. feet) whose observation aspect indicates directivity of reflected radiation.

pressure to the index of refraction is given by the well known expression:

$$(n-1)\,10^6 = \frac{79}{T}\left(p - e + \frac{4{,}800e}{T}\right)$$

The dependence of refractive index on pressure leads to a regular decrease with height, but the change of barometric pressure with weather produces only an insignificant effect on the gradient. The variations in this index in the lower atmosphere owe their existence to stratifications in which the temperature and moisture change rapidly with height. As temperature decreases with height n increases, and as humidity decreases n decreases. The effect of humidity variation is distinctly more pronounced than the effect of temperature, and humidity variations constitute the main cause of nonstandard conditions with temperature variations a contributing factor. The major effects of nonstandard refraction on radar propagation occur only for rays which emerge from the transmitter at angles less than $\frac{1}{2}$ degree. For angles between $\frac{1}{2}$ and $1\frac{1}{2}$ degrees the refractive effects consist merely in minor modifications of the expected radar coverage, while for angles above $1\frac{1}{2}$ degrees the refractive effects are negligible. These considerations are best clarified by figure 33 which

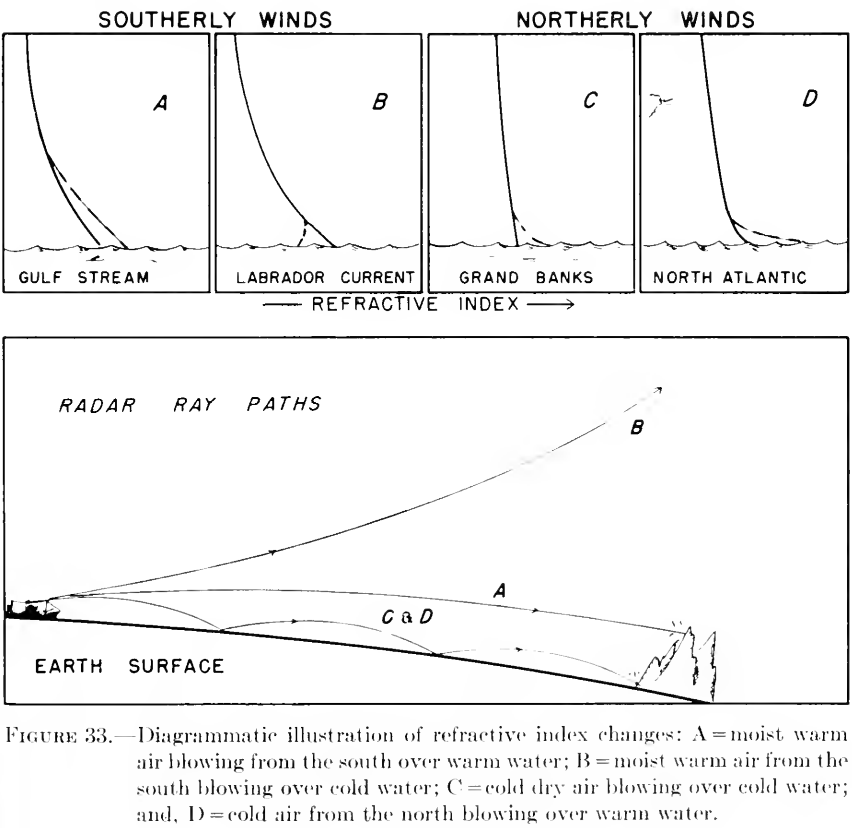
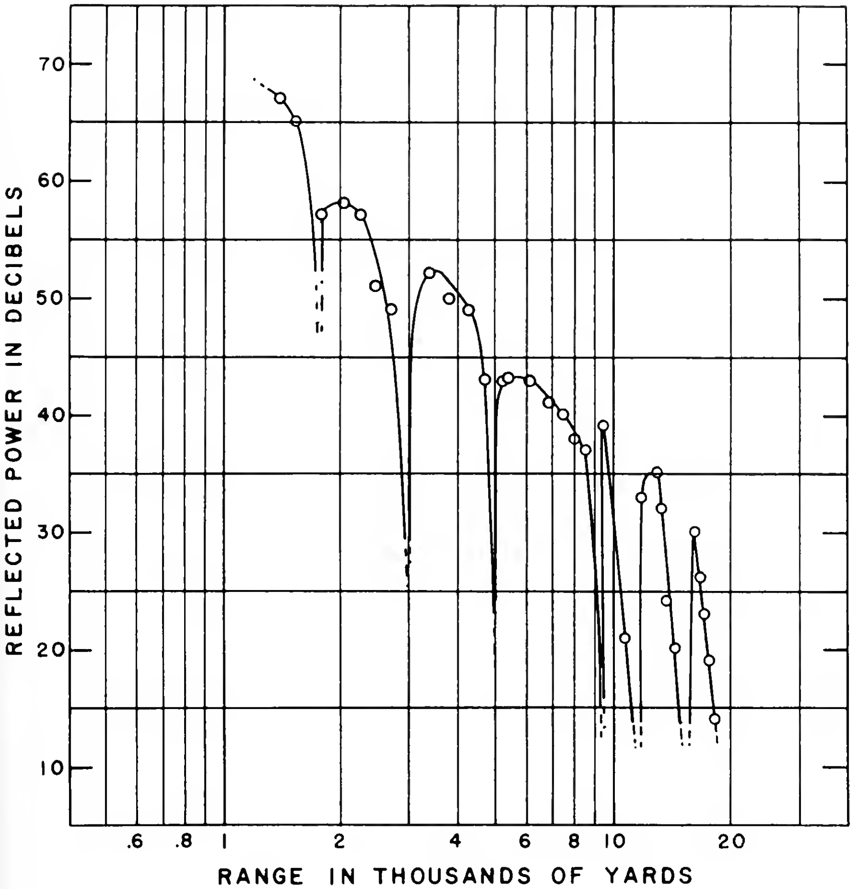


FIGURE 33.—Diagrammatic illustration of refractive index changes: A = moist warm air blowing from the south over warm water; B = moist warm air from the south blowing over cold water; C = cold dry air blowing over cold water; and, D = cold air from the north blowing over warm water.

is a diagrammatic illustration showing the variation in radar propagation conditions with air flow trajectory. Under conditions of moist warm air blowing over warm water (fig. 33A) little change is expected in the air mass and more-or-less standard conditions prevail. However, as this moist warm air moves over cold water surfaces as the Labrador Current or shipping lanes during early spring (fig. 33B), the air loses heat and moisture in the lower levels, and as the moisture loss predominates the index of refraction increases with height for the first few hundreds of feet and radar waves bend upward more rapidly than normal. This results in subnormal microwave propagation and reduced radar ranges as illustrated by the ray path "B". Unfortunately, this condition predominates in the ice areas during the early spring and summer months. Close under the Newfoundland coast, dry cold air blowing over the cold water surface will result in increased moisture in the lower levels and a condition of superrefraction or "ducting" (fig. 33C). Under these circumstances and those resulting from this cold relatively dry air from the north blowing over the warm water surface of the south (fig. 33D), a large portion of the energy of the radar pulse is confined to a narrow region in the lower atmosphere resulting in extended ranges. This phenomena of superrefraction is a common occurrence at sea and ranges are extended 3 to 5 times. Unfortunately, this supernormal condition usually exists during clear days when extended radar ranges are not required. An analysis of the weather observations taken while the iceberg maximum range observations were being made indicates that average and better-than-average ranges might be expected on clear days, and that below-average ranges are to be expected on foggy days which is in conformance with theory.

Quantitative Measurements

To assess the magnitude of decreased ranges due to the subnormal propagation conditions which might be found on the Grand Banks area it would be necessary to make serial measurements of the vertical distribution of temperature and humidity over an extended period of time. From these observations ray diagrams or coverage charts might be constructed and an estimate made of the reduction or increase in the expected range. A more practical approach would be to treat the problem statistically using the routine data of sea temperature, air temperature, humidity, and wind speed as proposed by Anderson and Gossard [*17*] and others. To gain confidence in any of the quantitative radar data it was necessary to make as many weather observations as practical in the Grand Banks area. Where possible a sounding was made with the captive Wiresonde instrument which accurately measures temperature and humidity at any desired altitude interval. Measurements from the surface to above 300 feet were made at frequent intervals depending on the expected gradient. As a result it was possible to obtain excellent information on the propagation conditions during 30 percent of the radar tests.



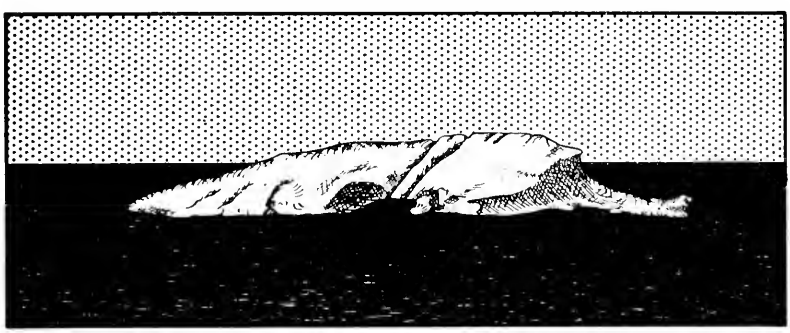


FIGURE 34.—Reflected power expressed in decibels above minimum discernible signal plotted as a function of range for the low lying iceberg (33 by 247 feet; 5,360 sq. feet). The fade areas were well documented on this target whose maximum range of detection was 19,600 yards. Subnormal propagation conditions existed; c.f. figures 35 and 36. The sea was calm.

Of particular interest is the test-run made on a small iceberg (33 by 247 feet) during which six well documented fade areas were passed through. The results of power measurements on this berg are shown in figure 34, and the results of a Wiresonde sounding taken immediately after the power measurements are shown in figure 35. From these observed temperature and relative humidity distributions, and the resultant index of refraction variation compared to that for standard conditions, it is immediately apparent that subnormal conditions existed. To further investigate this phenomena, a ray diagram (fig. 36) was constructed graphically using a method similar to that developed by Anderson and Abbott [*18*]. Accordingly, the maximum detection range to be expected for this target is approximately 17,000 yards; whereas, the maximum range ex-

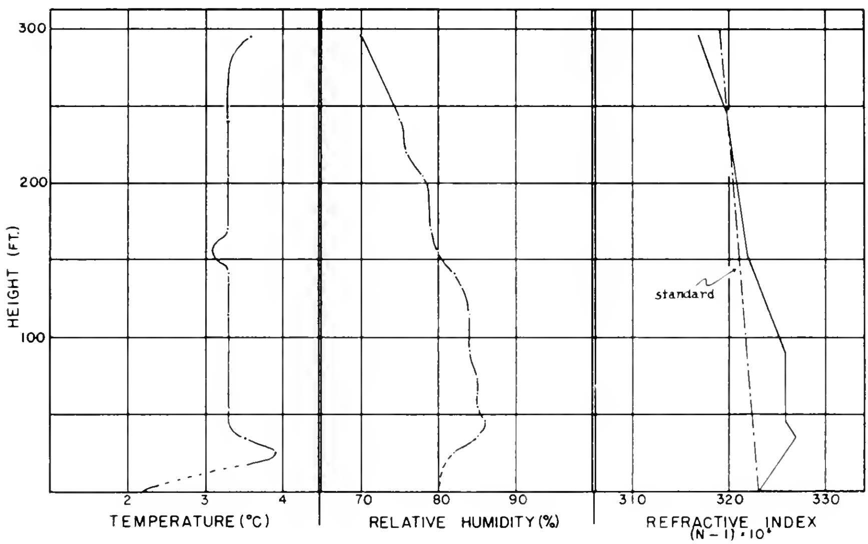


FIGURE 35.—Vertical distribution of temperature, relative humidity, and refractive index observed by Wiresonde in the vicinity of iceberg of figure 34.

pected for the standard conditions for a target of this height is 36,000 yards. The range of iceberg detection was actually 19,600 yards and this increased range of detection over that expected from the ray diagram is attributed mostly to diffraction. Also shown diagrammatically in figure 36 is the space comparison between the actual fades (fig. 34) and the fades expected from destructive interference phenomena deduced from the ray diagram. The solid wedge areas indicate the approximate range of theoretical fades. The shape of the expected fade curves has not been computed. Smooth sea conditions prevailed during the test-run. There was indication of sharp fades during other test-runs when the sea surface was smooth and this is in accordance with what one would expect by consideration of the surface roughness and its effect on reflection.

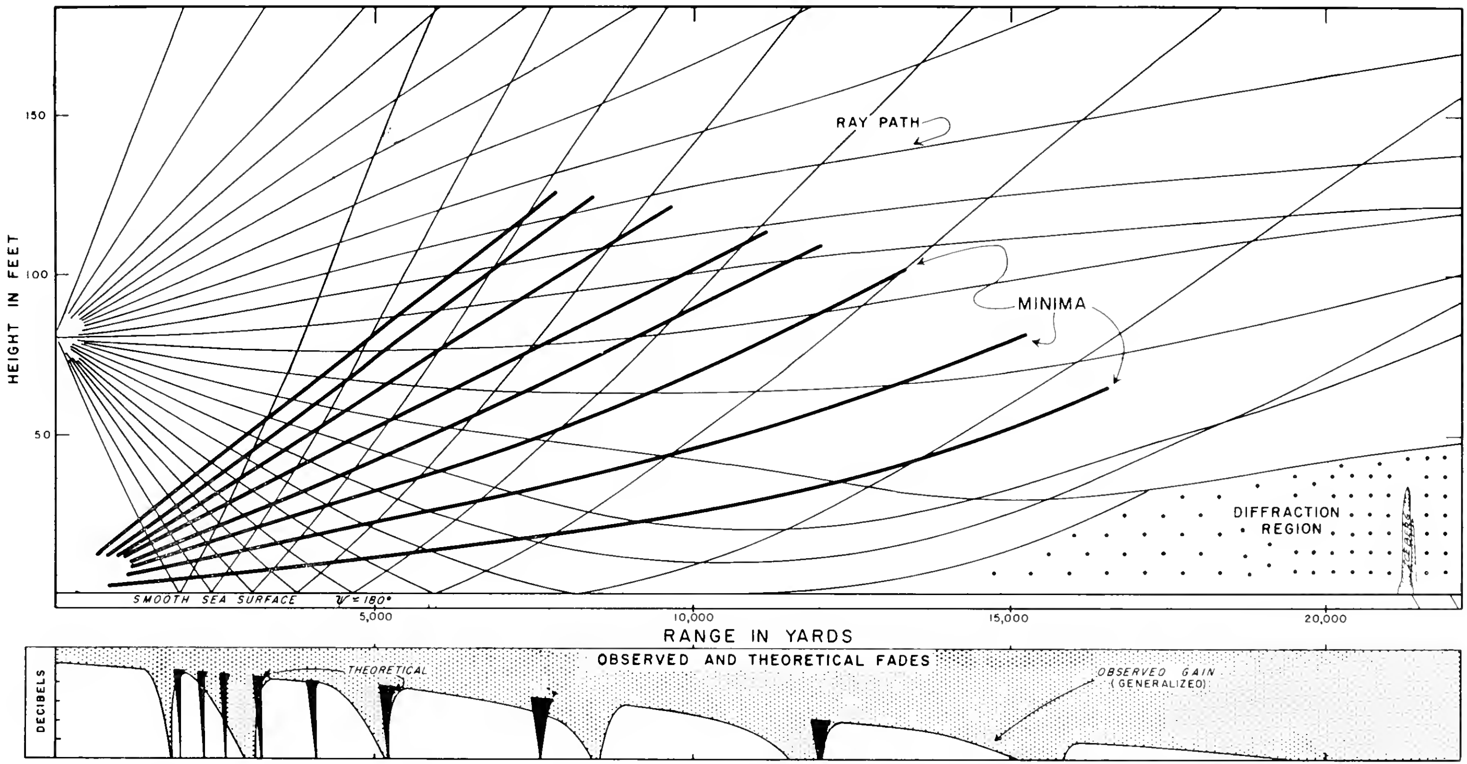


FIGURE 36.—Ray diagram showing the location of minima and the correlation between observed and expected fade areas for the iceberg of figure 34. Solid wedge areas indicate approximate range of expected diminished signal strength.

Expected Average Propagation Conditions

At this time it cannot be said with certitude to what extent the conditions on the Grand Banks may reduce radar ranges; however, there is little doubt that the subnormal propagation conditions are the rule rather than the exception. It is possible to estimate the magnitude of range reduction which might be expected due to the atmospheric conditions prevalent on the Grand Banks and contiguous areas of the North Atlantic Ocean. A qualitative consideration of the processes involved indicates that the average temperature and humidity distribution from the surface to 150 feet at the Tail of the Grand Banks during spring is characterized by increase in temperature with height and near constant relative humidity approaching 100 percent. An examination of radiosonde observations from coastal stations and the computed average index of refraction conditions presented in the U.S. Climatic Atlas of the Oceans [*16*] indicate that the expected average condition would be one of isorefractive index from the surface to a few hundred feet. Ray diagrams for this condition and the condition of standard propagation (index of refraction gradient of -1.19×10^{-8} units per foot) have been constructed and are shown in figure 37. The top diagram represents the internationally accepted standard conditions and the bottom diagram shows a comparison between the standard conditions and the average subnormal conditions defined here for the Grand Banks. The minima for both *S*- and *X*-band for the standard conditions have been superimposed on those for the "average" conditions. This comparison indicates that the magnitude of decreased detection in the Grand Banks region is insignificant at short ranges and that there is no preference to radar frequency for short range detection during subnormal propagation conditions. The temperature and humidity conditions upon which the lower ray diagram was constructed are considered to be conservative generalizations of subnormal conditions; and it should be remembered that at times a rapid increase in temperature in the first 100 feet accompanied by a constant high relative humidity or humidity increasing with height might lead to slightly reduced ranges on small targets and relatively greatly reduced ranges on large targets.

Fog Attenuation

The prevalence of fog in the potential ice areas has led to a theoretical investigation of the attenuation to be expected due to fog. Observations indicate that fair weather clouds and fog are composed of water droplets whose diameters do not exceed 0.02 centimeters. For this size droplets the attenuation formula becomes independent of the drop size distribution and takes on the remarkably simple form [*5*]:

$$\alpha_{db/km}=\frac{24.55m\epsilon_i}{\lambda\{(\epsilon_r+2)^2+\epsilon_i^2\}}$$

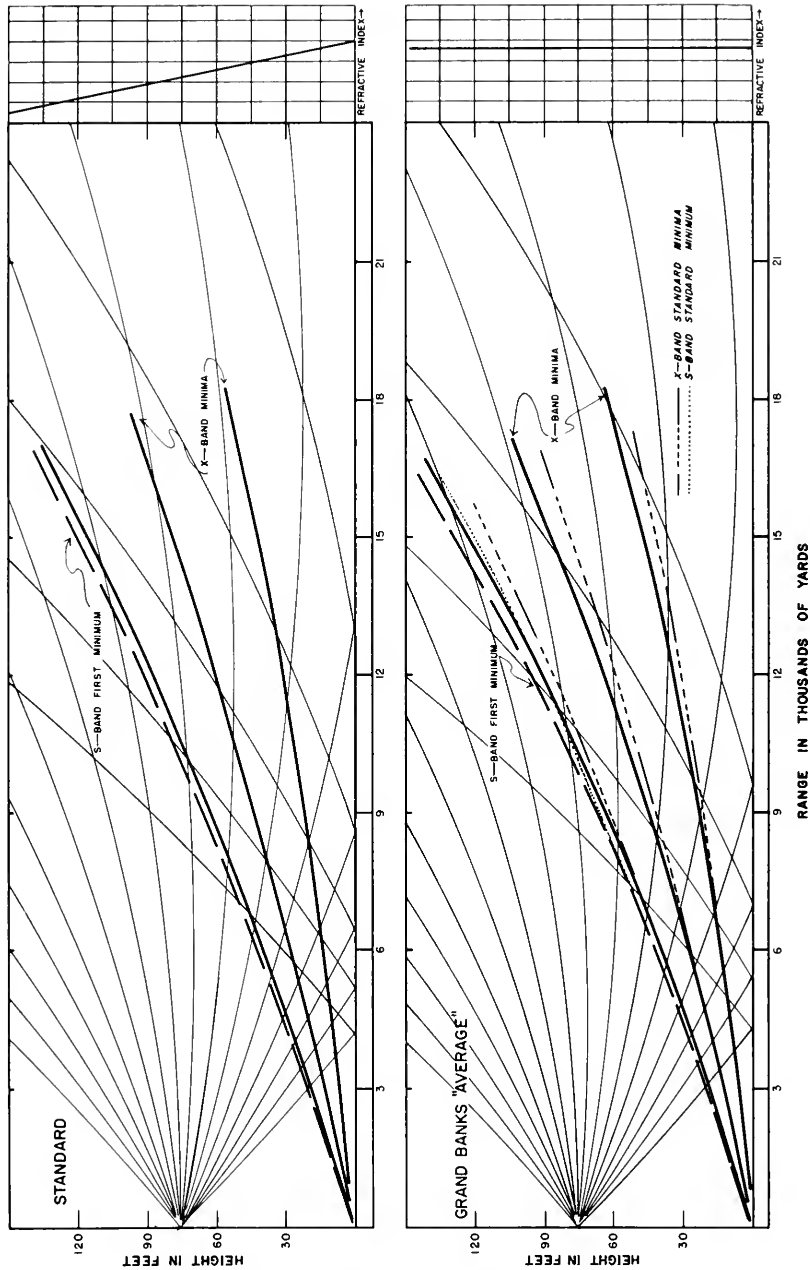


FIGURE 37.—Ray diagrams illustrate the expected subnormal propagation conditions on the Grand Banks as compared to "standard" conditions for both S- and X-band radar. Top standard diagram is superimposed on bottom diagram to illustrate the difference in lobe pattern between the two conditions. It may be inferred from these diagrams that little change in field strength is to be expected within the first 8 000 yards from the antenna.

where m is the mass of liquid vapor per cubic meter, λ is the wave length in centimeters, and ϵ_r and ϵ_i are the real and imaginary parts of the dielectric constant at the temperature in question for the wave length of radiation. Humphreys [19] gives a value of 0.006 gm/m^3 as the liquid water content of fog. As the concentration of 0.6 gm/m^3 is rarely exceeded [5] this value is used in the computations below. Based on the 18°C. pure water complex dielectric constants of (63.6—j32.7) for X-band and (79.0—j12.3) for the S-band, the maximum attenuation to be expected on a radar range of 5 miles is 0.55 decibels for the X-band and 0.06 decibels for the S-band. Although there is a ten-fold difference between the two frequencies the values are insignificant when other factors are considered. The attenuation due to water vapor (7.5 gm/m^3) and oxygen over the same range is approximately 0.16 decibels for both frequencies [20]. Of interest here is the fact that water suspended in the air in the form of drops contributes less to the refractive index than an equivalent amount of vapor. The formation of fog, therefore, reduces the prefog attenuation by water vapor; however, the importance of diminished visibility far outweighs this slight advantage in fog over prefog conditions.

If there is a temperature inversion in the fog layer, the vapor pressure required for saturation increases with height and substandard conditions usually result. As mentioned above, this is a common occurrence on the Grand Banks during southerly winds. In summary, it is concluded that the attenuation of S- and X-band radar waves due to fog is not significant compared to other factors.

Icebergs Hidden by Weather

Although fog attenuation is not significant, attenuation of radar waves due to rain drops is of considerable importance for frequencies in the X-band and above. The back scattering from rain squalls, as shown in Table I, is often sufficient to obliterate a small target.

Table I

	Rate of fall	Attenuation for 5-mile range (decibels)	
	(in./hr)	X-Band	S-Band
Moderate rain	0.24	3.6	0.03
Heavy rain	.86	12.8	.11
Cloudburst	1.7	31.0	3.2

This tabulation taken from curves presented by Goldstein [21] is quite revealing, and would make high frequency radars prohibitive in areas of continuous heavy rain. Fortunately, the passage of frontal systems and their associated rainstorms or sometimes cloudbursts is rather rapid compared to other weather phenomena and if necessary a mariner may stop his vessel until the masking effect has passed. On two occasions during the field experiments growlers were masked by moderate to heavy rain showers. During both occasions the rain squall line was 20 miles wide and moved across the PPI scope at 15–20 kts. During the first occasion a 22-foot growler below Cape Race was hidden intermittently by a storm which lasted one hour. On the second occasion the weather completely masked a 6- by 30-foot blue growler which the *Evergreen* was standing by above the North Atlantic Shipping Track CHARLIE. The growler and weather situation which confronted the writer and radarmen are shown in figure 38. We were unable to detect this target during the passage of the weather

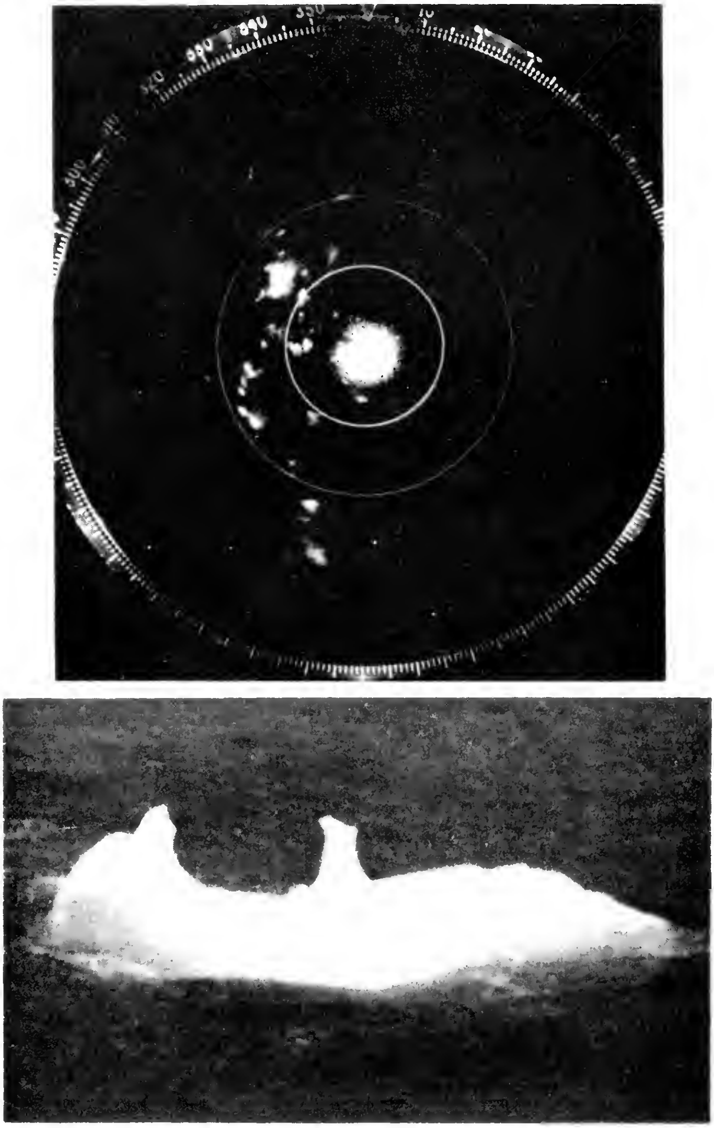


FIGURE 38. Illustration of rain squall masking a growler (6 by 30 feet) which should have been discerned at 310° T; 3,000 yds. Situation lasted one hour.

although we knew its position within 200 yds. (approx. 310°T; 3,000 yds). Both FTC and STC anticlutter circuits proved ineffective in this case. Later the growler was sighted just off the bow. This small ice formation was of sufficient size to inflict serious damage to a thin-hull vessel making contact at moderate speed. Of interest here is the fact that the masking effect from snow is less than that from rain as would be expected from considerations of the low reflection coefficient for snow shown in figure 27.

SEA RETURN

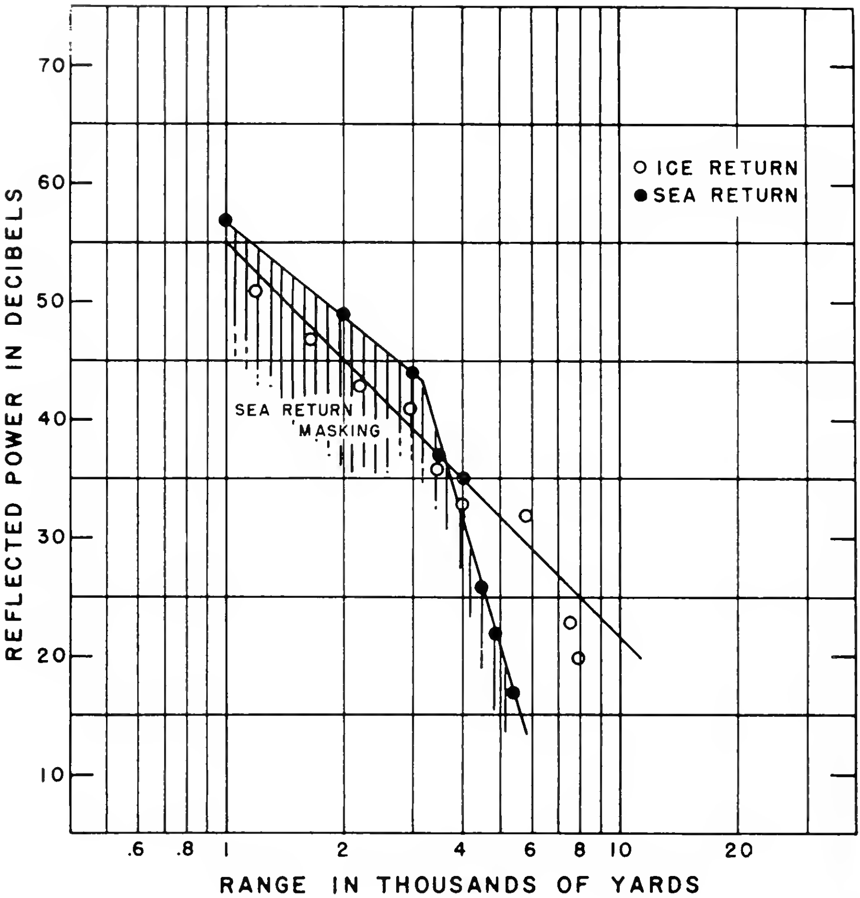
General

Although it has been established that icebergs are very poor reflectors of radar, and that reflection might be further decreased by aspect and subnormal propagation conditions which exist on the Grand Banks during spring, it is well established that most icebergs do provide good targets and during calm sea conditions some reliance can be placed on radar. However, it appears that distinguishing small ice targets in heavy seas might be the limiting factor in the reliability of radar as an instrument for providing safe navigation through ice infested waters. The basic phenomena of sea return or sea clutter have not yet been definitely established; however, it is well known that sea echo from waves acts as a built-in jammer, blanketing and obscuring small target echoes. Other things being equal, the strength of the sea return depends upon the state or roughness of the sea, which in turn depends largely upon the wind force. As demonstrated in 1945 [3], the range of sea clutter on the scope is very nearly directly proportional to the state of the sea and the wind force.

The radar cross section and echo strength of sea return are difficult quantities to measure or compute because among other things the reflection surfaces extend from the ship to an indefinite range. The variation of reflected power with range does not necessarily follow the same relation as that for a ship or iceberg target as is apparent from the fact that the reflection from waves is less at longer ranges due to a decrease in the angle of incidence. In general, the decrease in sea return with range is more rapid than that for other targets.

Quantitative Measurements

Of prime importance to this study was the quantitative determination of the masking effect of sea return. Many mariners have reported that ice targets have gone undetected due to masking by sea return but it remained, however, to make quantitative measurements under controlled conditions to definitely assess the importance of sea return. Numerous measurements were made on all states of the sea from the maximum range of sea return to as close as practical on the "A" scan. It was early observed that this measurement required the most objective treatment and close adherence to a standard technique. The data were taken on four bearings and as has been demonstrated before the strongest echo arrived from windward. A good correlation does not exist between wave height estimates and the reflected power curves from the two different ships which made these measurements; however, enough measurements have been made to quantitatively show that sea return for wave heights above 4 feet is sufficient to entirely obscure dangerous growlers. This is is best illustrated by figure 39 in which the reflected power curves for a growler and a 4.5-foot sea are compared. Because this figure illustrates the important results of very carefully controlled measurements under ideal conditions a detailed account of the observations is given: During the day of 28 May 1959 the CGC *Androscoggin* commenced test-runs on a large growler (22 by 76 ft.; 665 sq. feet). From a temperature and humidity sounding (Wiresonde) from the surface to 290 feet, the atmospheric conditions were assessed as being near standard throughout the first 200 feet. The sea at this time was approximately 2 feet high, 500 feet long. Because a small growler (4 by 20 feet) in the vicinity was being partly obscured by sea return, the ship remained near the 22-foot growler throughout the day for anticlutter measurements. That evening the wind increased to 20 kts and the seas to 4.5 feet high, 200 feet long. Considerable difficulty was experienced in detecting the 22-foot growler and the 4-foot growler was completely obscured. Twenty-eight measurements of the reflected power from the sea were made at short range intervals on four bearings. The observations made in the windward direction were 10 decibels greater than those made in the backsides direction and 5 decibels greater than those made parallel to the waves. The curve for the windward measurements is presented in figure 39. The 20-knot winds and intermittent rain preclude subnormal propagation conditions. The optimum detection range for this target was 6,200 yards and although the maximum range observed earlier that day was 11,200 yards, the maximum range during the 4.5-foot sea was 9,000 yards. This formation could not be detected in the sea return using the available anticlutter devices. It should be mentioned that although the aspect shown in figure 39 was the aspect observed during the test-run earlier that day, a slight rotation would present a considerably smaller physical cross section. This formation no doubt was rocking and rotating during the observations, but an indeterminate error throughout these measurements is precluded by the fact that this formation was observed continuously for 11 hours and found to be of the same shape after 18 hours. These measurements caused some concern as although they were supported by other less precise observations the fact that 4.5-foot waves reflected better than a 22-foot growler whose aspect showed some target gain seemed to conflict with reason. The theoretical analysis of this problem presented below has reestablished the validity of these observations.



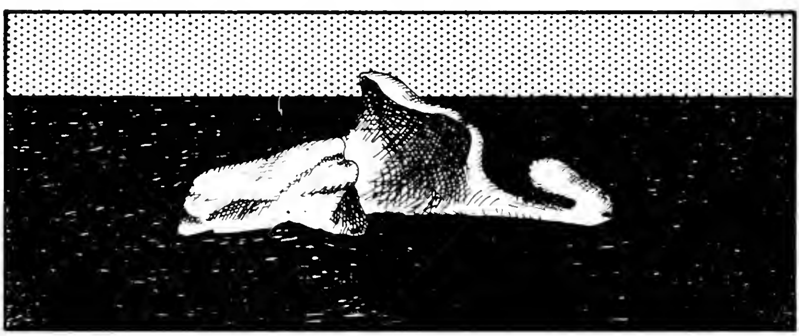


FIGURE 39.—Reflected power expressed in decibels above minimum discernible signal plotted as a function of range for a growler (22 by 76 feet; 665 sq. feet) and sea return (4.5 feet high, 200 feet long). The measurements were made during standard propagation conditions under known overall radar performance.

Behavior of Sea and Ice to Frequency and Polarization

One of the subordinate objectives of this program was to evaluate the various characteristics of radar systems. Below the subjects of optimum frequency and polarization are treated by a theoretical analysis based on Fresnel's original equations in their complex form. The reflection coefficient of a surface exhibiting conductivity is complex and as thoroughly presented by McPetrie [22], the coefficient may be conveniently represented by a phase component K and an inquadrature component K' where the reflection coefficient R takes the form $(K+jK')$. Recalling equation (11):

$$\epsilon_c = \epsilon_r - j\epsilon_i = \epsilon_r - 2j\frac{K}{f} = (n - j\zeta)^2 \tag{11}$$

it is apparent that the reflection coefficient, being a function of the complex dielectric, is a function of the conductivity, frequency, and angle of incidence. This parameter is also a function of the polarization and it was therefore necessary to perform the tedious computations in order to accurately determine the relation of frequency and polarization to the optimum ice detecting characteristics. Computations based on the equations given below were made for S- and X-band frequencies, vertical and horizontal polarizations and angles of 0°, 20°, 40°, 50°, 60°, 70°, 80°, 82°, 83.5°, 84°, 86°, 88°, and 90° for both pure ice and sea water, and from the best known values of the complex dielectric constants for the radiation considered. McPetrie [22] has derived from the original Fresnel equations the following relations for the reflection coefficient. If the reflection coefficient for horizontally polarized waves is designated (K_h+jK_h'), the values for these components are given by:

$$K_h = \frac{\cos^2\theta - (c^2+d^2)}{\cos^2\theta + (c^2+d^2) + 2c(\cos\theta)}$$

$$K_h' = \frac{-2d(\cos\theta)}{\cos^2\theta + (c^2+d^2) + 2c(\cos\theta)}$$

in which θ is the electromagnetic angle of incidence ($\theta=0$ for normal incidence) and c and d are given by:

$$c = \sqrt{\frac{\{(\epsilon_r - \sin^2\theta)^2 + \epsilon_i^2\}^{\frac{1}{2}} + \epsilon_r - \sin^2\theta}{2}}$$

$$d = -\sqrt{\frac{\{(\epsilon_r - \sin^2\theta)^2 + \epsilon_i^2\}^{\frac{1}{2}} - \epsilon_r + \sin^2\theta}{2}}$$

where ϵ_i and ϵ_r are the imaginary and real parts of the dielectric constant.

For the case of radiation polarized with the electric field in the plane of

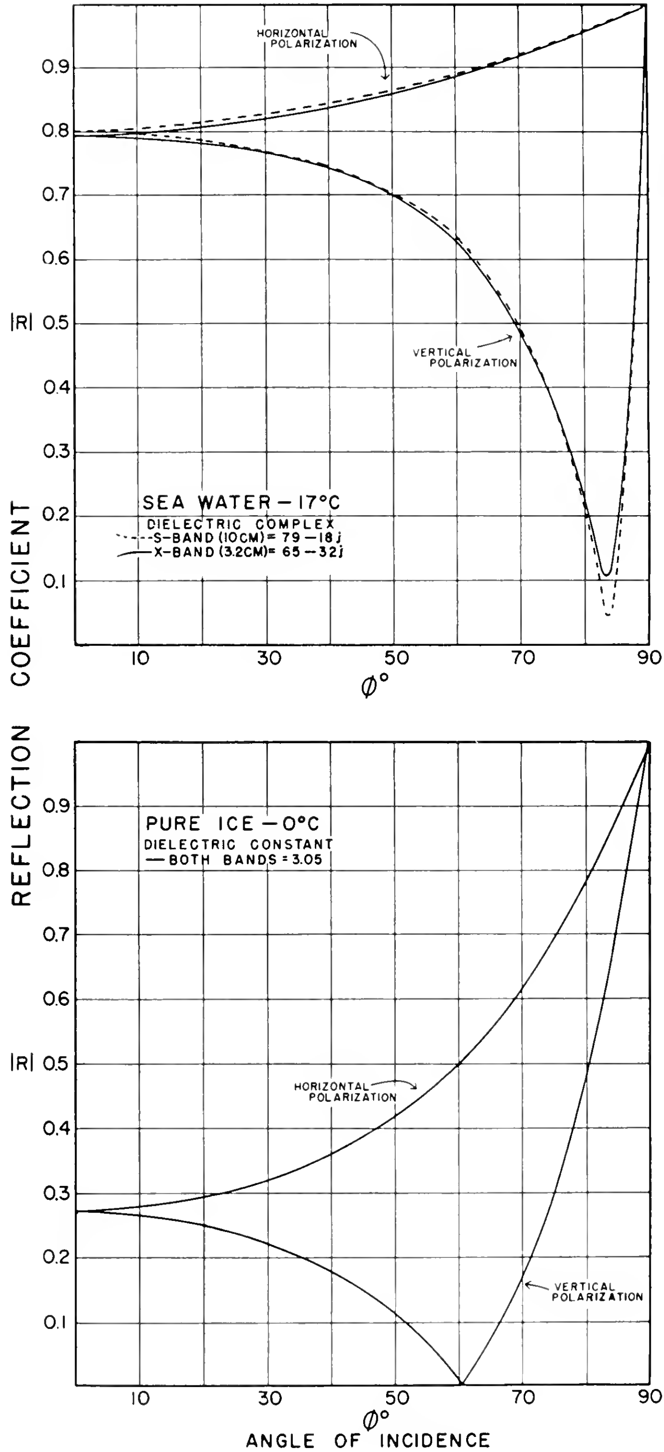


FIGURE 40.—The variation of reflection coefficient with angle of incidence for ice and sea water irradiated by S- and X-band frequencies. Curves for vertical and horizontal polarization were computed from Fresnel's complex equations.

incidence the components K_v and K_v' of the reflection complex (K_v+jK_v') are given by:

$$K_v=\frac{(\epsilon_r^2+\epsilon_i^2)\cos^2\theta-(c^2+d^2)}{(\epsilon_r^2+\epsilon_i^2)\cos^2\theta+(c^2+d^2)+2(\epsilon_r c-\epsilon_i d)\cos\theta}$$

$$K_v'=\frac{-2(\epsilon_r d+\epsilon_i c)\cos\theta}{(\epsilon_r^2+\epsilon_i^2)\cos^2\theta+(c^2+d^2)+2(\epsilon_r c-\epsilon_i d)\cos\theta}$$

in which the symbols have the same significance as in the equations above. It can be seen from these equations that the reflection coefficient tends to unity as the angle of incidence approaches 90°, and is zero for all angles of incidence for a body having zero conductivity and unity dielectric constant. The results of these computations are shown in figure 40. A number of conclusions can be drawn from this figure:

1. The reflection coefficient of ice is three times less than that of sea water. This fact helps explain the results of relative power measurements shown in figure 39.

2. In both cases of polarization, the reflection coefficient is less for vertical than for horizontal polarization for all angles of incidence.

3. *S*- and *X*-band behave the same on both ice and sea water for all practical purposes. Field experiments in 1946 [*3*] confirm the fact that ice is not frequency sensitive; however, because the reflection from droplets contributes appreciably to the sea echo, there is some measured [*5*] frequency dependence of the radar cross section per unit area for sea echoes.

4. The Brewster angle for pure ice is 60°13′. An examination of the vertical polarization curves reveals that although, theoretically, less sea return would be observed using vertically polarized radiation, the reduced ice reflection coefficient is the limiting factor. It appears that the mariner using vertically polarized radar is at a disadvantage during calm or slight sea conditions. A limited number of qualitative measurements using vertical polarization for the detection of growlers in sea return during the 1946 studies [*2*] gave negative results.

EVALUATION OF ANTICLUTTER CIRCUITS

General

The masking effect of sea return and weather has long been of concern to radar manufacturers and mariners. The program for the field work of this investigation was designed to place most of the emphasis on an evaluation of the effectiveness of commonly used anticlutter devices in the discrimination of small ice targets from sea clutter. Two types of devices most common to commercial marine radars were evaluated on different sized targets during various stages of the sea. The observations were documented by PPI photographs, cognizance of set performance, and knowledge of the atmospheric propagation conditions. The two devices are:

FTC—Fast time constant is a differentiating circuit which effectively reduces the gain within the clutter area only. It is normally used to limit scope clutter caused by reflections from atmospheric hydrometeors.

STC—Sensitivity time control circuit reduces the gain of the receiver during the reception of short range signals.

The effectiveness of these circuits in some situations is best illustrated by comparison of the PPI scope presentation with and without application of anticlutter devices as shown in figure 41. These photographs are from a series of observations made on the 22-foot growler, subject of figure 39. The top photograph shows the growler at 333°T; 6,000 yards and sea return from a 4-foot sea extending out to 5,000 yards. The gain and video circuits were set for the maximum discernment of the target. Figure 41 (bottom) is a photograph of the PPI scope under the same conditions as above except the STC circuit is used to decrease the near gain and thereby obliterate the sea return. This was the optimum presentation that could be obtained. It was found when working with growlers in sea return that the FTC circuit is valueless and on two occasions when weather obscured the target (c.f. fig. 38) this device was ineffective.

Results

Intensive studies of the effectiveness of FTC and STC in discriminating growlers in sea return have indicated that FTC is valueless and STC is very effective if used with the proper combination of video and receiver gain; however, on three different occasions it was not possible to detect growlers in sea return although the radar was in peak condition and the propagation conditions were near normal or only slightly subnormal. It should be remembered that these anticlutter devices were designed to decrease the gain in a particular area on the scope and thereby reduce the brilliant clutter and allow the strong persistent echo of a target to stand out. The STC and FTC action appears to be useless unless the target echo is stronger than the sea echoes and as has been demonstrated the basic electrical properties of ice leave it as a poor reflector compared to sea water. Of value to ice detection is the new type of logarithmic receiver in which the effective gain is proportional to the logarithm of the signal amplitude. This receiver characteristic provides higher gain for weak signals and relatively lower gain for strong signals. However, the effective use of this device or other controls including video and receiver gain requires a skilled and experienced operator. It was only after many months of constant radar surveillance that the writer was able to master the intricacies of Lin-Log, STC and gain combinations which allowed the full potentials of the system to be utilized. Evaluation of operators who have

FIGURE 41.—Effect of anticlutter devices as aids to discernment of a growler from sea clutter. Top photograph shows sea return extending to 5,000 yds and a 22-foot growler at 333°T; 6,000 yards. Bottom photograph is the same situation with STC applied.

as their primary duty the radar watch on board ships has revealed that the use of anticlutter devices often times decreases the radar's effectiveness due to lack of training or experience. It is known that vessels are transiting the North Atlantic Ocean with the FTC circuit activated without any knowledge of its function or use. Other vessels reduce sea return by decreasing the video or receiver gain although STC is available on the radar set. It is not too infrequently discovered that radio operators, radar operators, merchant officers, and even naval watch officers do not know the function of the anticlutter devices for their radar sets on which they rely so heavily during reduced visibility. This lack of knowledge and improper use of these devices leads one to the conclusion that in many cases it is best not to have them available at all. In summary, we can safely say that if an ice target is not picked up beyond the sea return it will not be detected at all and a fatal collision might result.

CONCLUSIONS AND DISCUSSION

General

It has been established by both observation and basic theory that an intrinsic property of icebergs is poor electromagnetic reflection and that reliance cannot be placed on radar for safe navigation during moderate sea conditions because if a dangerous ice fragment is not detected beyond the sea return, it will not be detected at all. Below, the conclusions reached for each topic of investigation are viewed and summarized in relation to the following radar system parameters:

Power Output
Receiver Sensitivity
Bandwidth
Frequency
Polarization
Antenna Rotation
Anticlutter Devices

Power Output, Receiver Sensitivity, and Bandwidth

We find that a reasonable approach to the assured detection of ice might be to improve the system parameters to such an extent that all dangerous ice targets can be detected beyond the sea return. This follows from the fact that the rate of attenuation of sea return with range is greater than that for a point target. Examination of the free space radar equation (2) reveals that it is necessary to increase the power output 16 times in order to double the maximum range of detection. This tremendous power increase has been precluded in the past by considerations of cost and space; however, recent developments in power generating devices might allow an improvement in the maximum range of detection without necessitating unreasonable cost and space requirements. The system might be improved by decreasing the wave guide attenuation or the distance between the antenna and the receiver-transmitter unit.

The relation between power output and range may be applied also to the minimum discernible signal and the maximum range of detection. An interesting relation can be derived for the absolute minimum discernible signal obtainable. It has been shown [5] that the maximum range of detection for a target per power output is a function of the receiver bandwidth. The minimum perceptible signal is in part related to the thermal noise; and because the thermal noise of a receiver is independent of the receiver construction, and the internal noise is usually several times the thermal noise, it is possible to derive the absolute minimum as follows. Thermal noise is generated by the random motion of electrons in a conductor and the rms thermal noise voltage which appears across terminals of any circuit element is a function of the frequency interval (receiver bandwidth) only; it is given by

$$V_n = \sqrt{4kT \cdot f \cdot R}$$

where R is the resistance across which the noise voltage is measured, f the bandwidth in cycles per second, T the absolute temperature, and k Boltzmann's constant. If we assume, for the purpose of the limiting case, that the receiver is without any internal noise and all of the noise is generated in the antenna which is at 17°C., the noise power is given by:

$$P = 4 \times 10^{-15} f \text{ watts}$$

where f is now in megacycles. This means that the minimum detectable signal cannot be less than 4×10^{-15} watts times the bandwidth. For the receiver most used in the field work, the minimum discernible signal was 10^{-13} watts for the 20- and 40-mile scales and the bandwidth was 2 Mc/s. Therefore the minimum discernible signal was about 11 decibels above the absolute minimum of 8×10^{-15} watts. To illustrate the importance of maintaining a low minimum discernible signal, a target was examined under two known minimum discernible signal values on the same radar with the same power output within two minutes of time. These controlled conditions were provided by making use of the two minimum discernible signal values for the AN/SPS-23 radar; i.e., −91.9 dbm for the 8-mile range, and −100.1 for the 20-mile range scales. A medium growler was brought to within 2,000 yards of the *Evergreen* and two PPI photographs were taken on either range setting. The growler, shown at the bottom of the figure, was clearly painted on the 20-mile range setting (fig. 42A), but was hardly discernible on the 8-mile setting. This difference in reception for the 20- versus the 8-mile range settings has been observed on many occasions. The propagation conditions at that time were subnormal. The ratio of blips to the number of times the antenna scanned this target was 1.0 for the 20-mile range, but only 0.5 for the 8-mile range at 4,600 yards. As the maximum range of this target on the 8-mile scale was 4,850 yards,

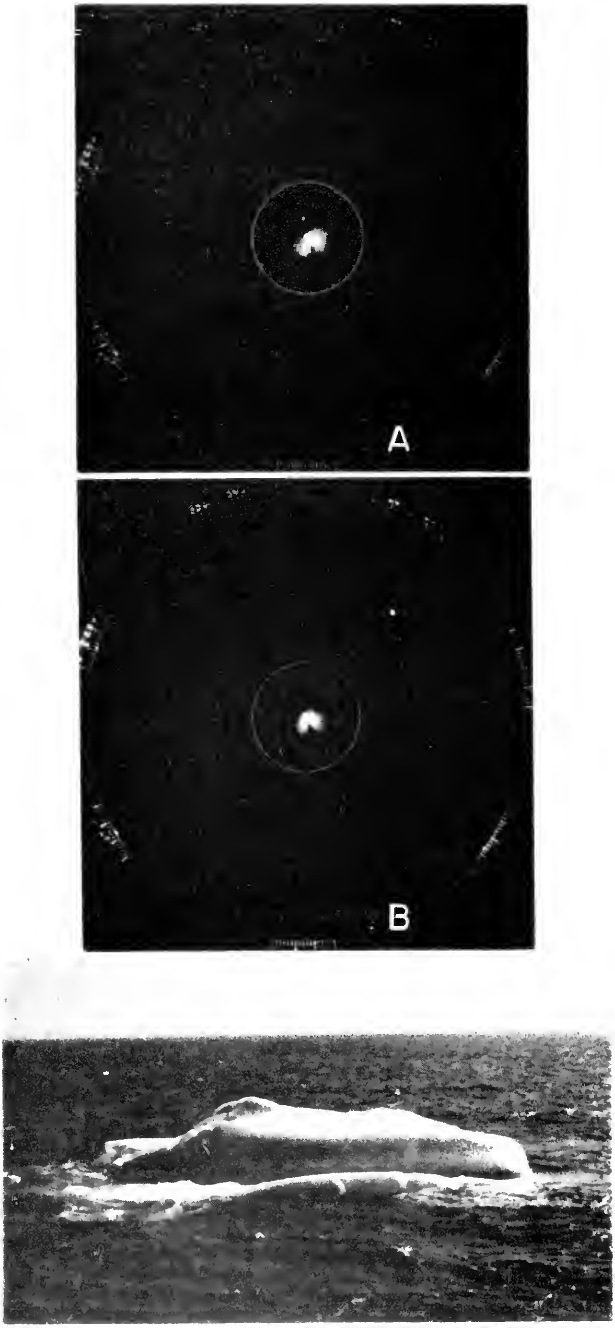


FIGURE 42.—The importance of receiver parameters is shown by a comparison of the radar reception of an echo from the growler shown using two different values of minimum discernible signal. Photograph A shows a strong blip on the 20-mile scale (min. dis. sig. = 100 decibels below one milliwatt); and B shows no targets on the 8-mile scale (min. dis. sig. = 92 dbm). B was taken immediately after A.

a good probability exists that it would never have been picked up unless continuous surveillance of radar was maintained or the minimum discernible signal was lower than −92 dbm. The necessity of keeping a system in near peak operating condition is strikingly illustrated by this example.

Frequency and Polarization

As shown in figure 40, ice and sea water behave similarly to both *X*- and *S*-band frequencies with the exception that the reflection from droplets in sea spray is frequency sensitive (greater reflection the greater the frequency [5]). Less weather attenuation is found in the lower frequencies, but a better display (less conducive to operator fatigue) is found on the higher frequency sets. All things considered, there is no preference to the frequency of radiation for an ice detecting radar.

The rapid decrease in reflection coefficient with angle of incidence for vertical polarization indicates that horizontal is the preferred polarization. Circular polarization was not examined.

Antenna Rotation

An evaluation of antenna rotation was facilitated by the use of continuous rotation and 30° and 60° sector scans. It had been observed on many occasions that sector scan does provide a more definite detection and would probably be of value in detecting a weak ice target. The value of sector scan was qualitatively determined by a series of PPI photographs taken under the same propagation, target, and radar conditions. The favorable results to be expected in defining a weak target by sector scan are shown in figure 43. Figure 43A is a photograph of the PPI scope with the antenna in continuous rotation. This photograph shows, very faintly, two targets indicated by open circles. Immediately after this picture was taken the antenna was placed on sector scan. Although the rotation was only about two times faster on 60° sector scan, the two previously barely discernible targets appear many more times brilliant and a third target, previously undetected, became visible. The exposure for these pictures was exactly the same in all cases; however, photograph 43A suffered in development. There is little doubt that this antenna control device is advantageous, and assuming continuous rotation will be employed periodically, sector scanning ahead of the ship is recommended for iceberg navigation. The difference between 30° and 60° sector scan was negligible; therefore, 60° scan should be used. These observations suggest another device which might prove very effective in the discernment of a persistent weak echo amidst random echoes from the sea. This electronic integrating device, known as a "memory tube," might prove to be a definite asset in commercial radar sets.

Anticlutter Devices

Certainly the quest for a reliable radar should not exclude anticlutter devices; however, the proper use of any device involves the competency of the operator and the use of these devices present on many radar instal-

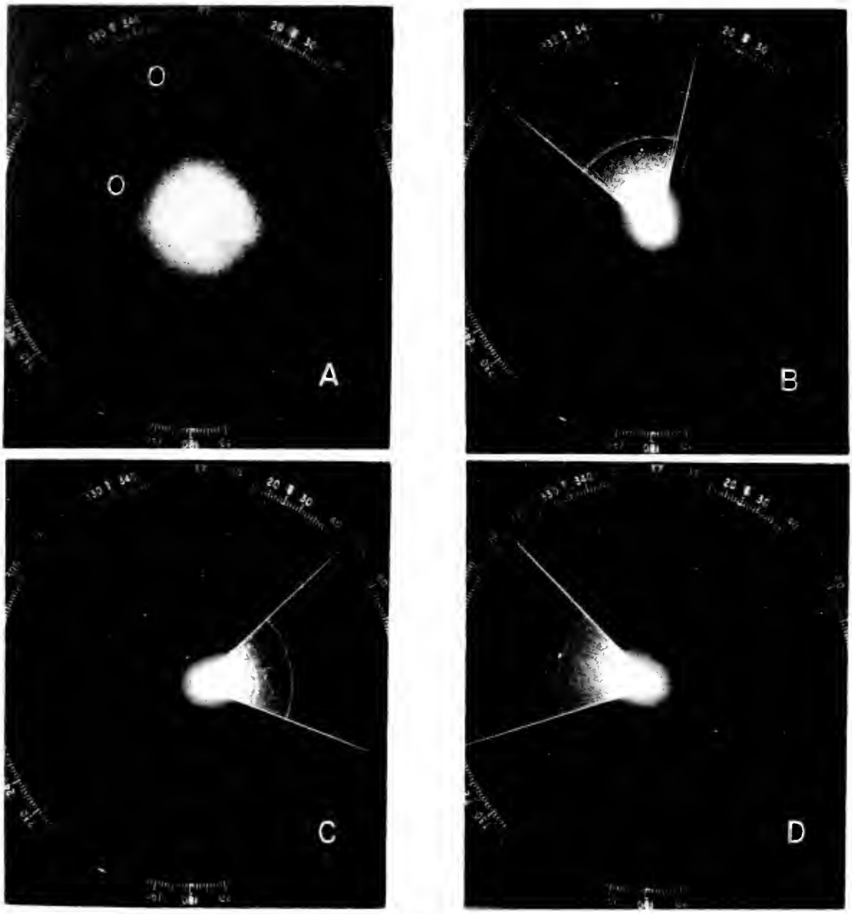


FIGURE 43.—PPI scope photographs illustrating the effectiveness of sector scan for the detection of icebergs (please see text).

lations today is beyond the training and skill of the majority of operators. It is recommended that rather than perfecting new devices which might more confuse the operator, a method of automatically applying various elements of sensitivity time control, fast time constant, and logarithmic echo amplification be considered. Perhaps a spectrum analyzer can be developed which could activate, automatically, these elements in the proper quantities depending on the spectrum of the sea return. This would certainly improve the potentials of a radar for detecting not only ice, but all targets in sea return.

Finally, based on the unequivocal conclusions of the studies conducted during the past 15 years:

All Ship Masters, Mates, and Owners are Warned That Safe Passage Through Iceberg Areas of The North Atlantic Ocean Cannot be Assured by the Use of Radar.

21 December 1959

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PHYSICAL OCEANOGRAPHY OF THE GRAND BANKS REGION AND THE LABRADOR SEA IN 1959[1]

By Floyd M. Soule and P. A. Morrill

(U. S. Coast Guard)

The 180-foot tender class cutter U.S.C.G.C. *Evergreen* served again as the oceanographic vessel of the International Ice Patrol for 1959. No marked alterations affecting the oceanographic work were made in the vessel since the 1958 season.

The *Evergreen* departed Argentia, Newfoundland, on 4 April to conduct the first survey of the 1959 season. This survey covered the waters over and immediately seaward of the southern and eastern slopes of the Grand Banks from westward of the Tail-of-the-Banks northward to the latitude of Flemish Cap. The work of collection of data began on 5 April at station 6890 located off the southwestern slope of the Banks and progressed from south to north without major interruption. On 18 April the final station, 6976, was completed and the *Evergreen* proceeded to Argentia arriving there the following afternoon.

A second survey, stations 6977 to 7064, made between 30 April and 12 May, and a third survey, stations 7065 to 7149, made between 27 May and 6 June, covering the same general area as the first survey, were completed without major interruptions.

On 14 June the *Evergreen* departed Argentia to conduct the fourth survey over and immediately seaward of the northeastern slope of the Grand Banks, including an occupation of the Bonavista triangle. The work of collection of data began during the late evening of 15 June at station 7150, located at the northern corner of the triangle. Again there were no major interruptions or delays, the work progressed in a counter-clockwise direction around the triangle and thence southeasterly to the latitude of Flemish Cap where the last station, 7229, was completed on 24 June.

From 7 to 14 July the *Evergreen* assumed the duties of Surface Ice Patrol Vessel, during which time studies were conducted by Lt. (jg.) Thomas F. Budinger of the Ice Patrol staff, on iceberg detection and iceberg disintegration. The results of the detection study may be found in the preceding section of this bulletin. During the disintegration studies a number of oceanographic observations were made and these will be published at a later date.

[1] To be reprinted as Contribution No. 1091 in the Collected Reprints of the Woods Hole Oceanographic Institution.

On the afternoon of 26 July the *Evergreen* departed Boston on a post-season cruise which included an occupation of the Bonavista triangle and a section across the Labrador Sea from South Wolf Island, Labrador, to Cape Farewell, Greenland. In addition to the regularly assigned personnel, Mr. Saul Friedman from the Lamont Geological Observatory was aboard to conduct a limited collection program of geochemical and biological samples in the area of the Labrador Sea.

The work of collection of data began in the early morning of 1 August at station 7230, the northern corner of the triangle. As expected, considerable difficulty was encountered in lowering the L. G. O. 50-gallon sampler and the 150-pound bottom pinger which were to be used at eight selected stations. After several unsuccessful attempts to launch and retrieve the equipment, it was decided to proceed with the stations of the triangle in a counterclockwise direction and make another attempt with the L. G. O. equipment at station 7259 again located at the northern corner of the triangle. During the intervening stations the ship's personnel devised a successful system of lowering and raising the drum and pinger to the waters edge and casts were made to 602 and 1826 meters at station 7259 without further difficulties.

Upon completion of the station the *Evergreen* proceeded to within 5 miles of South Wolf Island and commenced the Labrador Sea Section. Stations proceeded without major interruptions until station 7270. While attempting to obtain a drum and small coring samples, the pinger, with corer attached, and drum were being lowered when the pinger gave an uncertain signal of bottom at a meter wheel reading 3047 meters. As the pinger was again signaling free of bottom, lowering was continued to a meter wheel reading of 3081. The cast was then hauled in to 3030 meters to wait for the thermometers to reach equilibrium and allow for messengers to travel to the deepest gear. Hauling in was difficult and with about 2000 meters of wire out the unloading valves stopped the winch. After a wait of 10 minutes hoisting was resumed, but about every 100–200 meters the winch would again fail. Finally, with a reading of 833 meters the wire broke at a bad kink just below the surface resulting in the loss of the drum sampler, pinger, corer, three Nansen bottles, and eight reversing thermometers. After that disastrous station the remainder of the survey was completed without major interruption and at station 7283, located 5 miles off Cape Farewell, the survey was completed on 9 August 1959.

In addition to the 54 stations taken on the postseason cruise, four deep and nine surface large volume radiocarbon water samples, six atmospheric and three surface water equilibrated carbon dioxide samples, and six vertical tow and eight surface tow samples were taken for the Lamont Geological Observatory.

The oceanographic work was under the supervision of Oceanographer Floyd M. Soule for the first, second and postseason surveys, and Lt. R. M. Morse for the third and fourth surveys with Lt. P. A. Morrill assisting on all surveys. Other assistants in the observational work were

Elwood C. Gray and Richard C. Norris, aerographer's mates first class, William G. Carpenter, yeoman second class, Lynn E. Dawson and Donald P. Wagner, aerographer's mates third class. Temperature and salinity observations were made at each of the 394 stations. At the 24 stations forming the section across the Labrador Sea the observations extended from the surface to as near the bottom as was practicable. At the remaining stations the observations were limited to the upper 1500 meters. The intended depths of observations, in meters, were 0, 25, 50, 75, 100, 150, 200, 300, 400, 600, 800, 1,000, and thence by 500-meter intervals.

Temperatures were measured with protected deep sea reversing thermometers, mostly of Richter & Wiese manufacture but with some manufactured by Negretti & Zambra, G. M. Manufacturing Co. and Kahl Scientific Inst. Corp. Depths of observation are based on unprotected reversing thermometers made by Richter & Wiese and by Kahl. As in other years, a program of intercomparison of protected thermometers was carried out in the field measurements. The thermometers were used in pairs and one of each pair was shifted periodically so that the same thermometer was eventually paired with a number of other thermometers. From a total of 2,668 intercomparisons, the probable difference between the corrected readings of a pair of protected thermometers was 0.01°C. Of these comparisons, 343 involved thermometers having a range of +3° to +13° with a probable difference of 0.006°, 1,587 comparisons between thermometers of range −2° to +8° and gave a probable difference of 0.009°, and 738 comparisons were between thermometers with a range of −2° to +20° or greater and gave a probable difference of 0.014°. As most of the temperatures listed in the Table of Oceanographic Data are the means of the corrected readings of a pair of thermometers and since many of the thermometers used had recent laboratory comparisons with thermometers tested by the National Bureau of Standards, it is considered that the tabulated observed temperatures are good to 0.01°C.

As in previous years, routine salinity measurements were made with a Wenner salinity bridge. Prior to the 1959 season it was planned to construct a new calibration curve by titration of a number of large volume water samples collected at sea and then make a series of runs on the salinity bridge. Unfortunately, the water froze in its containers before this could be done. Consequently, a single carboy of water, designated C–1–59, was titrated 12 times with the result that when a series of comparisons was made on the salinity bridge between the water of C–1–59 and Copenhagen standard water of batch P23, a new reading for the P23 was determined. By using the new reading, a discrepancy of $+0.03_1‰$ is introduced between the 1959 and 1958 salinity values. It is noted that this discrepancy is the same that existed between the WHOI and the CGOU salinity bridges, as reported in Bulletin No. 44 of this series; however, until a number of titrations can be made on a series of large-volume water samples, covering the salinity range of the bridge, and a

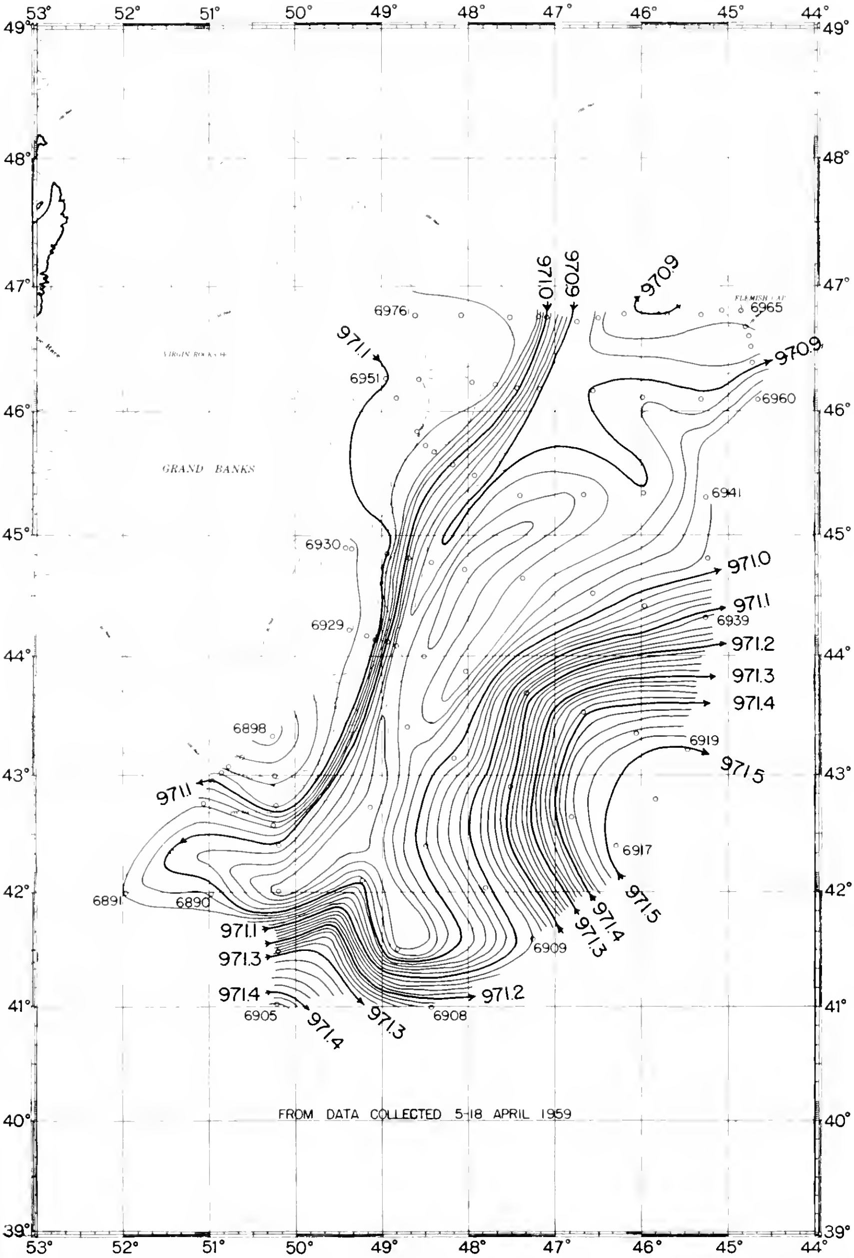

FIGURE 44.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 5–18 April 1959. Oceanographic station positions are indicated and the station numbers given at turning points.

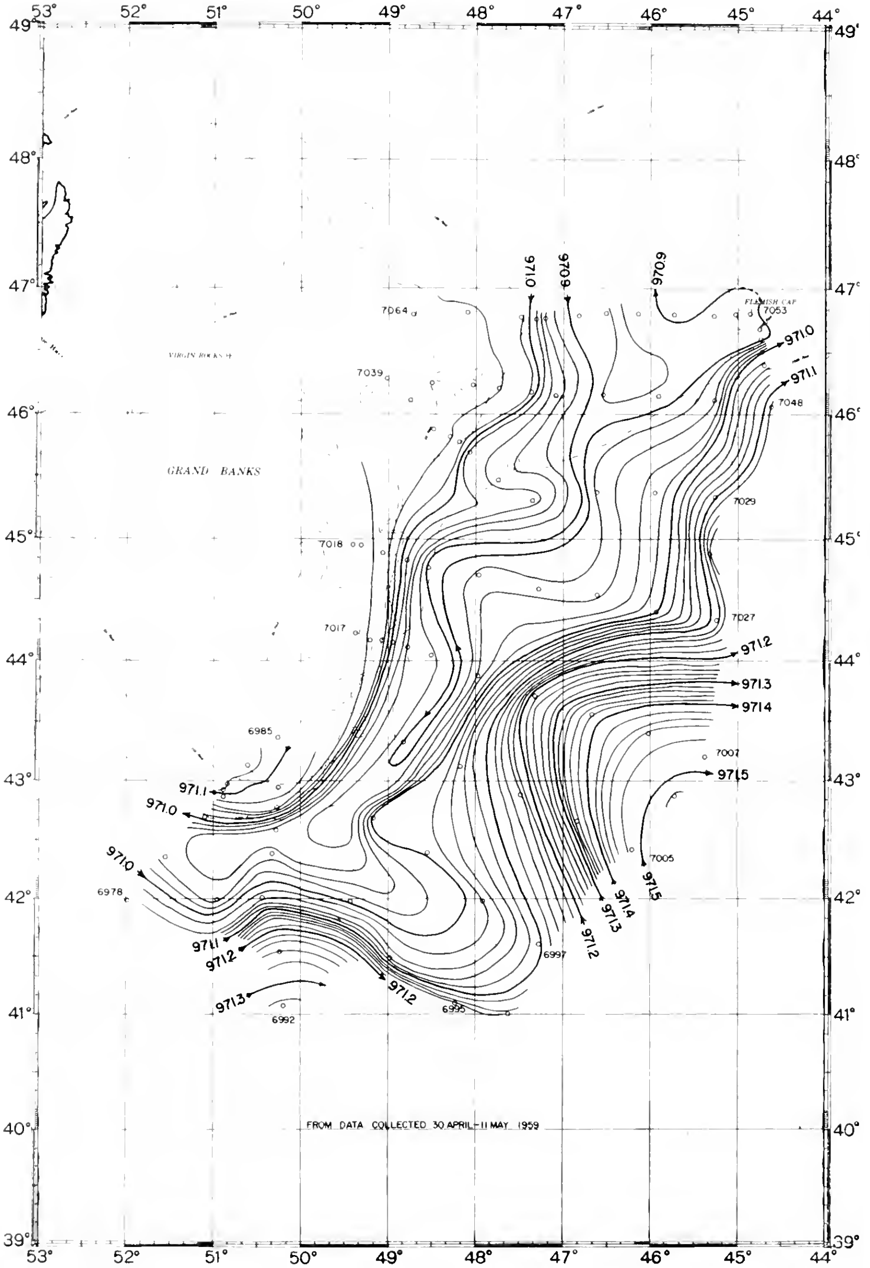

FIGURE 15. Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 30 April to 11 May, 1959. Oceanographic station positions are indicated and the station numbers given at turning points.

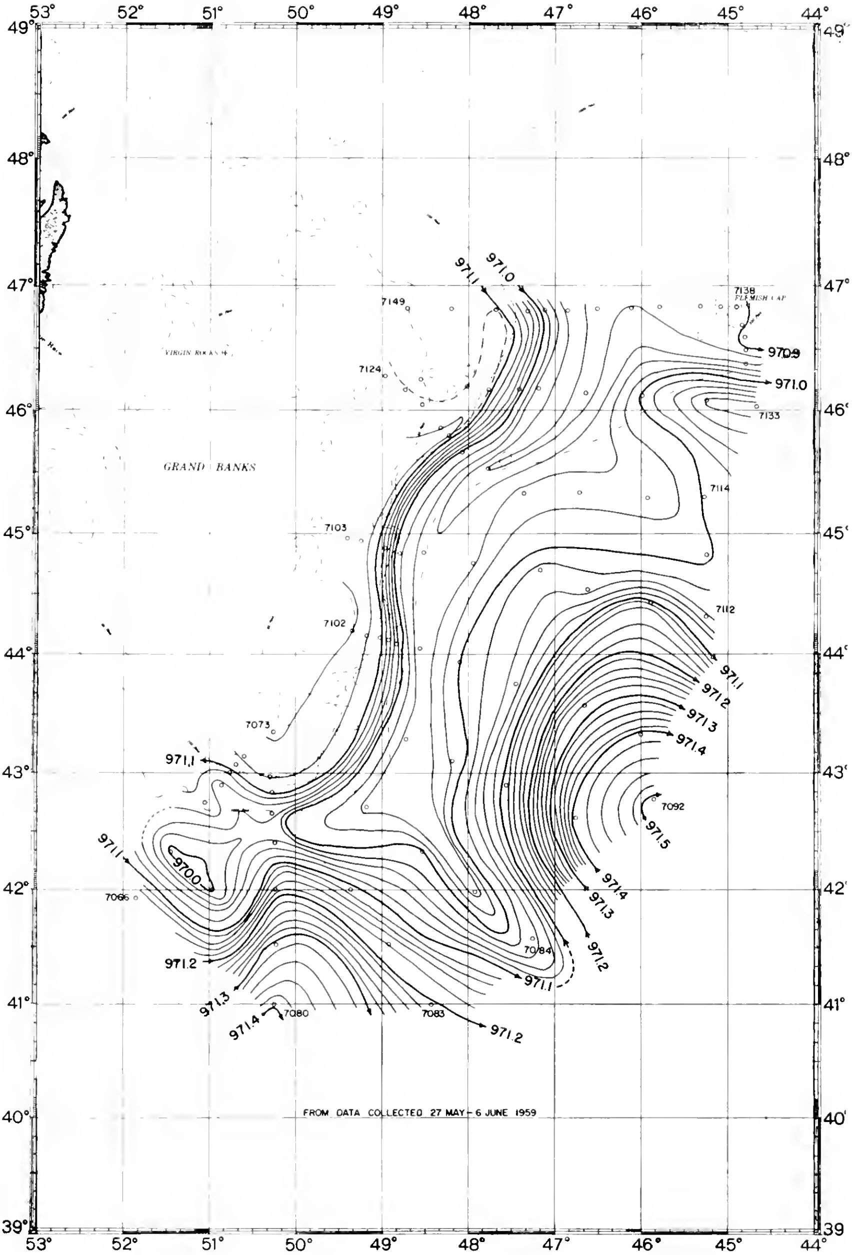

FIGURE 46.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 27 May to 6 June, 1959. Oceanographic stations are indicated and the station numbers given at turning points.

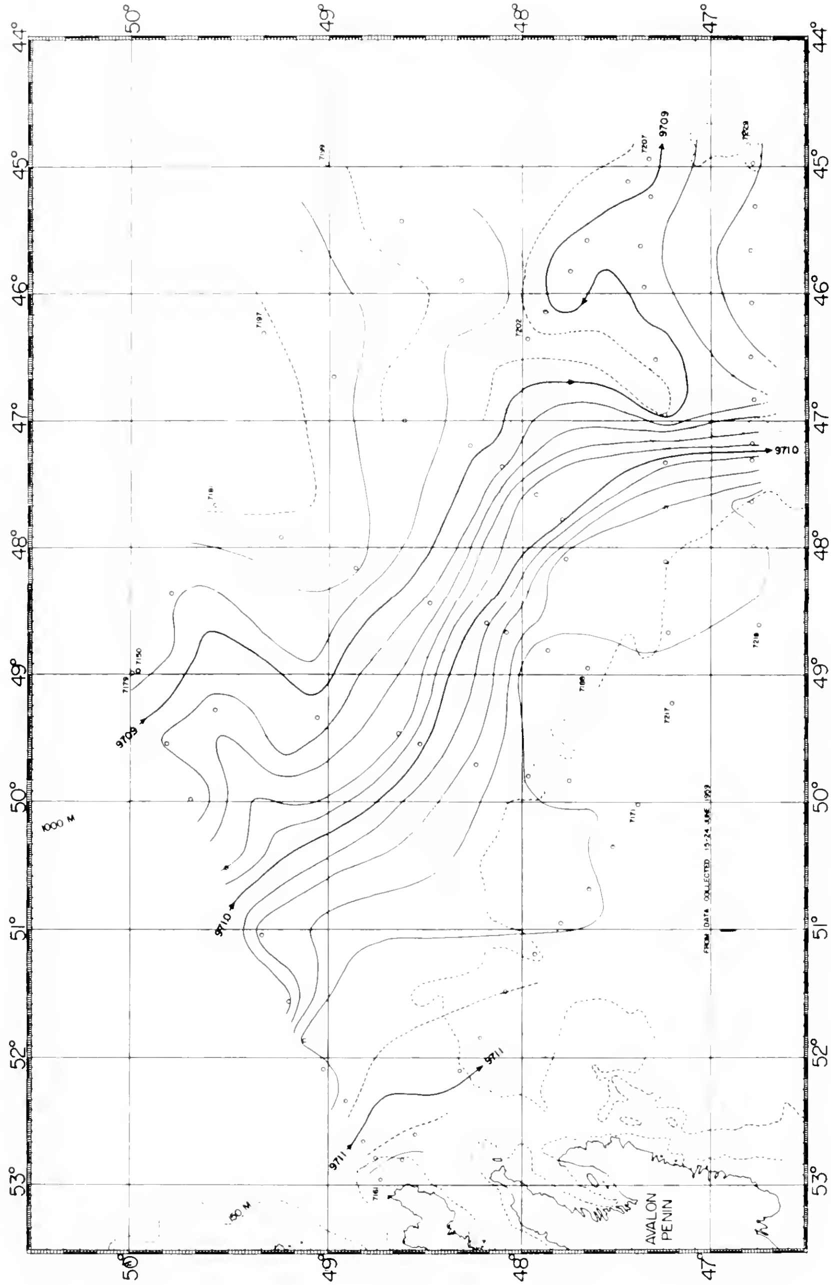

FIGURE 47.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 15–24 June, 1959. Oceanographic station positions are indicated and the station numbers given at turning points.

new calibration curve constructed, no positive statement can be made as to which values are correct. To this end, a number of water drum samples, varying from 31.5‰ to 36.5‰, were collected during the season and it is planned that a new calibration curve will be constructed prior to the 1960 season. The precision with which salinities were measured is considered to be about ±0.005‰.

Figures 44 through 48 show, in chronological order, the dynamic topography found during the four surveys made during the season and one during the occupation of the Bonavista triangle on the postseason cruise. As in the past, the reference surface used was 1,000 decibars for the four season cruises and the postseason triangle. It would appear that, especially in the case of the fourth survey triangle, a different reference level should have been used.

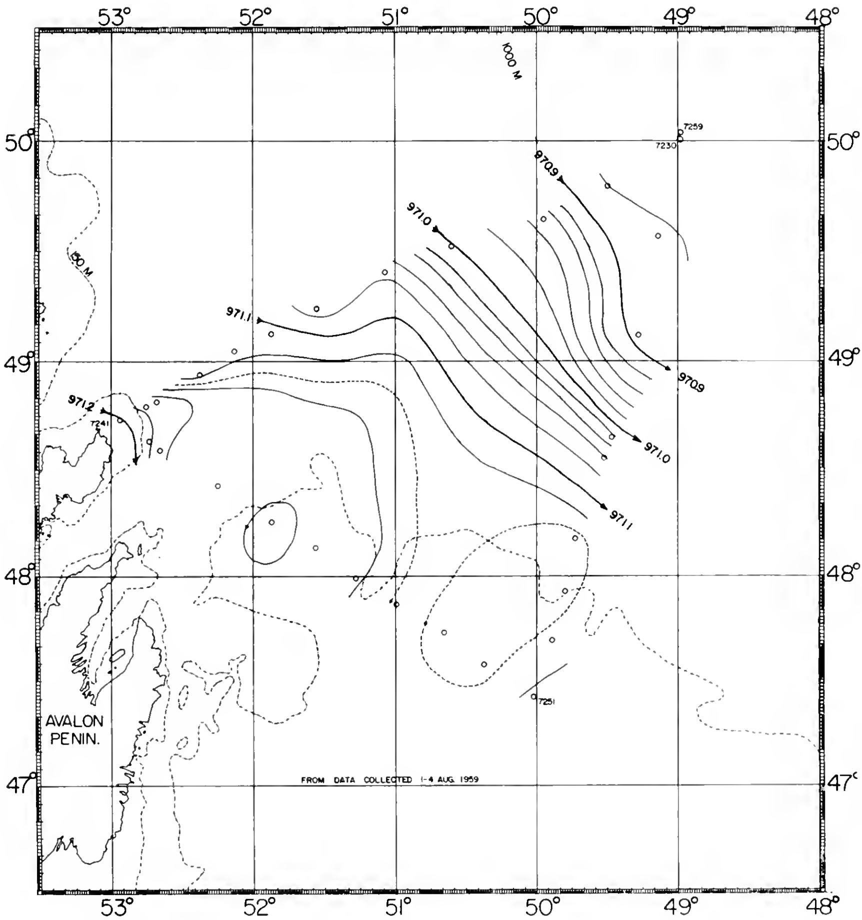

FIGURE 48.—Dynamic topography of the sea surface relative to the 1000-decibar surface from data collected 1–4 August, 1959. Oceanographic station positions are indicated and the station numbers given at turning points.

The first survey, figure 44, shows a very well defined Labrador Current but a rather small pool of quiet water off the southeastern side of the Tail-of-the-Banks and a poorly defined section of the North Atlantic Current in the Flemish Cap area. In the second survey, figure 45, we see that the Labrador Current becomes confused above latitude 45° N., a more developed pool of quiet water off the Tail-of-the-Banks and a rather well defined North Atlantic Current developing south of Flemish Cap. Third survey, figure 46, again shows a well defined Labrador Current but the quiet water pool extends northward to 45° N. Again the well developed North Atlantic Current off Flemish Cap is in evidence. It is noted that the main core of the Labrador Current moves off the Banks. near 44° N., and widens with a corresponding decrease of the maximum surface velocity as the season progresses. The average minimum temperature for the Labrador Current in the valley between the Grand Banks and Flemish Cap for the three surveys was −1.40°C which is colder than the 9-year average minimum of −1.26°C.

Comparing the two occupations of the Bonavista triangle, figures 47 and 48, we see a much more concentrated surface current flowing across the northwestern leg of the triangle during the postseason occupation than during the fourth survey. This might be a false representation as, in the fourth survey, there appears to be a possible movement at and below 1000 meters which was taken as the depth of no motion. In both cases the eastern branch of the current, which is the current flowing out across the southeastern side of the triangle, comprises more than 90 percent of the volume of water flowing into the triangle. Also on the fourth survey, figure 47, the main body of the Labrador Current lies westward of 47° W. and eastward of that longitude, at about 47° N., there is some loss of water to the east as it recurves northward.

Figure 49 shows a comparison of the temperature-salinity characteristics of water masses on the first three surveys of 1959 with the mean T–S characteristics from 1948 to 1959. Labrador Current water and Atlantic Current water are water masses found in this region and these two water masses usually mix in a sufficiently constant proportion to produce a mixed water which may be regarded as a virtual water mass. Of the three, the mixed water is the least definite and over the years there have been greater changes in the yearly shape of the curves representing this water mass than those for the other two. Every year there are some stations where the mixing is atypical and the individual station curves do not fall into any of the three categories. The data from these stations are excluded in determining the water mass characteristics. As has happened in the past, the majority of these stations showed mixtures between typical mixed water and the Atlantic Current water. Since the surveys do not normally include sections which completely cross the Atlantic Current, the curve for the 12-year mean does not accurately represent that water. It is noted that in both the Labrador Current and mixed waters both the temperature and salinity are lower than the 12-year mean

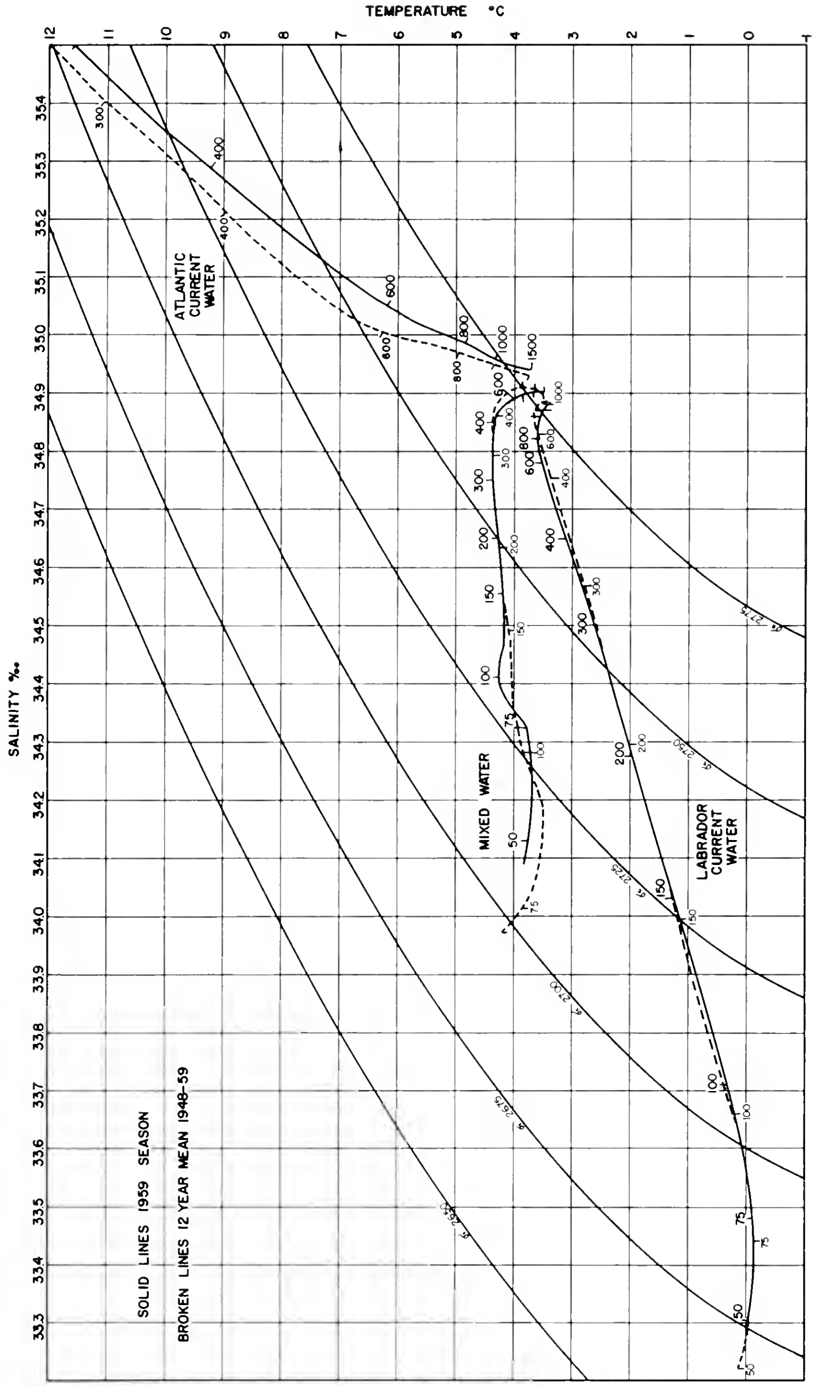

FIGURE 49.—Temperature-salinity relationships for Labrador Current water, Atlantic Current water and mixed water found in the Grand Banks region. Solid lines show conditions found during 1959 and broken lines represent the 12-year means for the period 1948–1959. An approximate depth scale in meters is given.

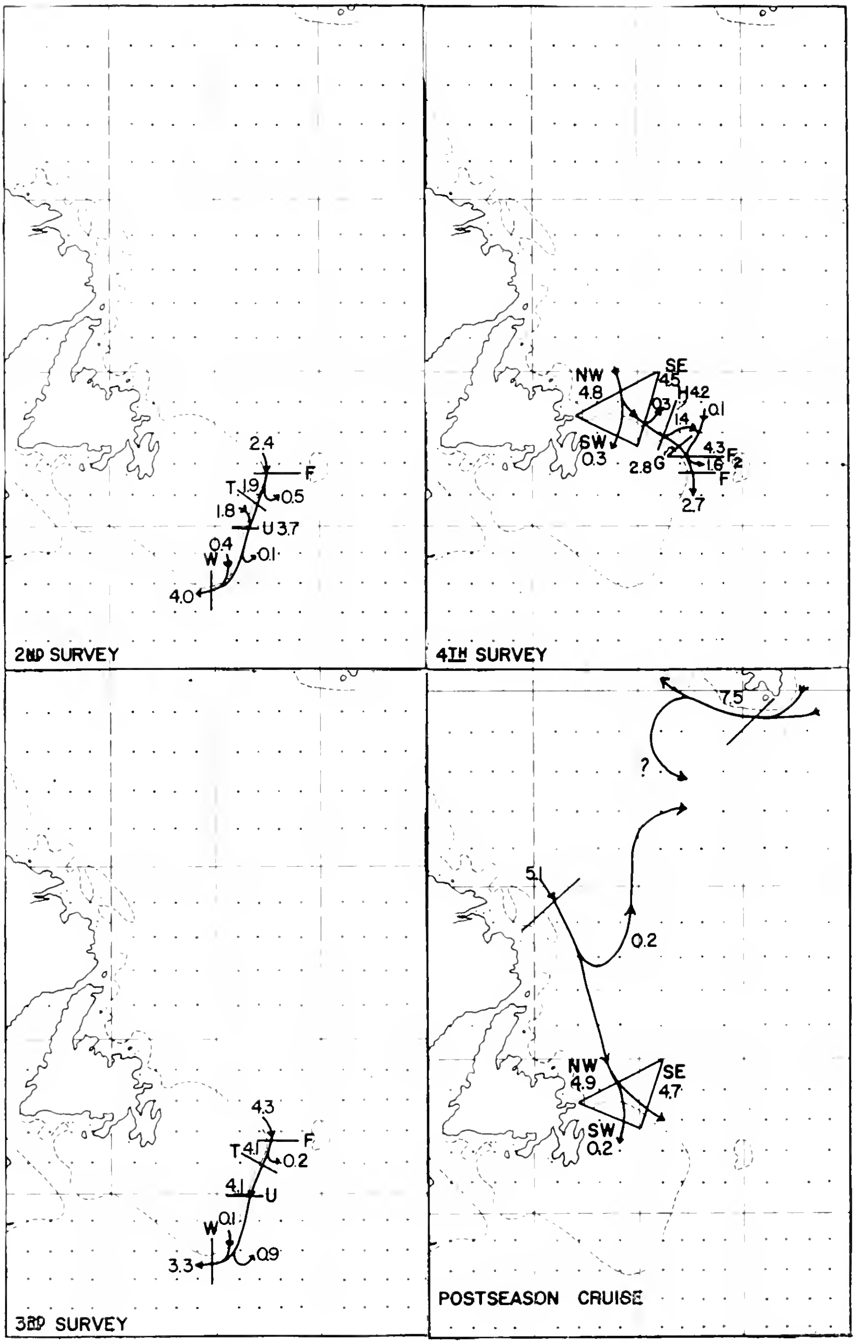

FIGURE 50.—Schematic representation of the circulation deduced from sections occupied on the 2nd, 3rd, 4th, and postseason cruises in 1959. Numerals indicate approximate volume transport in units of $m^3 \times 10^6$ sec.

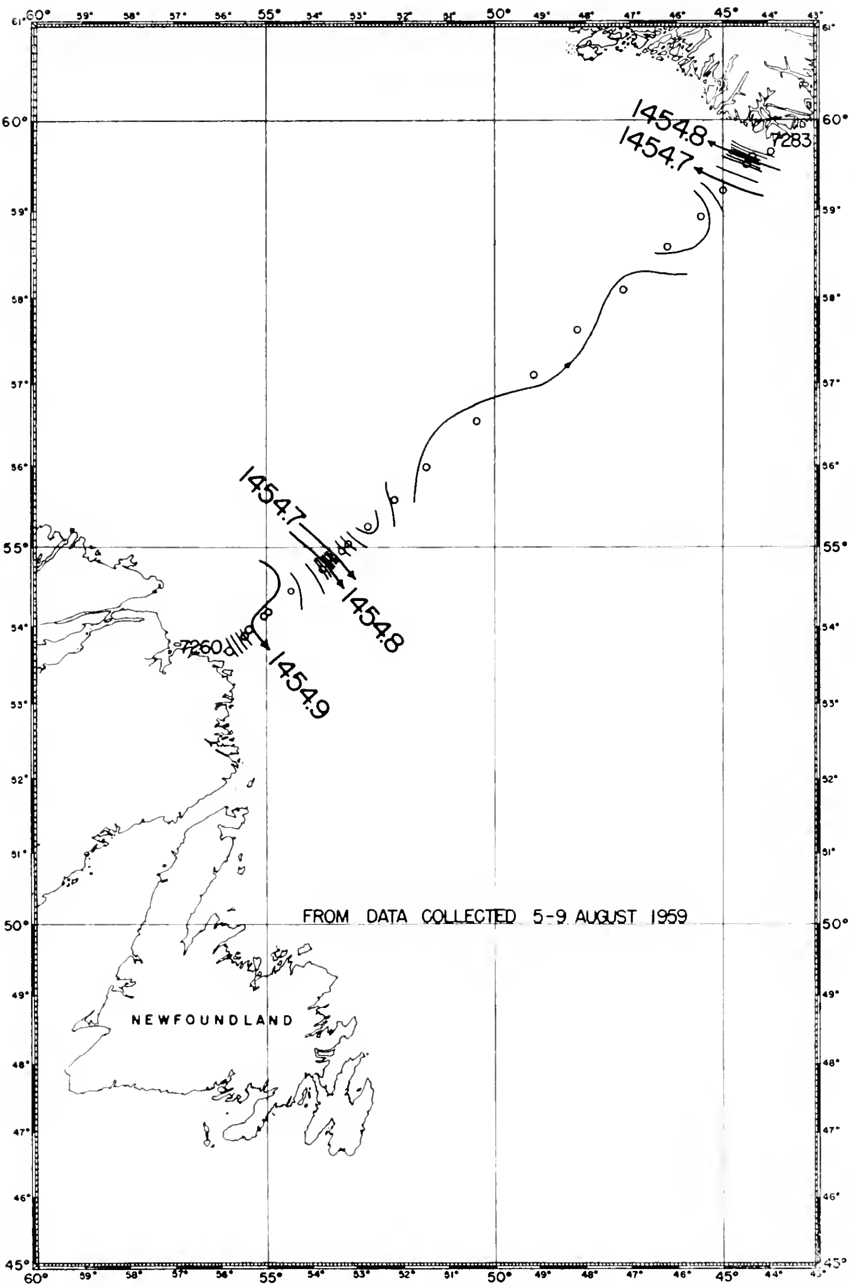

FIGURE 51.—Dynamic topography of the sea surface relative to the 1500-decibar surface from data collected 5–9 August, 1959. Oceanographic station positions are indicated by circles.

below 200 meters with the salinity being the controlling factor as the density is lower. In the Atlantic Current, the salinity is again the controlling factor but in the opposite direction as both the salinity and density are higher below 200 meters.

Figures 51, 52, and 53 show respectively, the topography of the sea surface relative to the 1500-decibar surface, the temperature distribution, and the salinity distribution along the section between South Wolf Island, Labrador, and Cape Farewell, Greenland. In figure 51, the effect of the

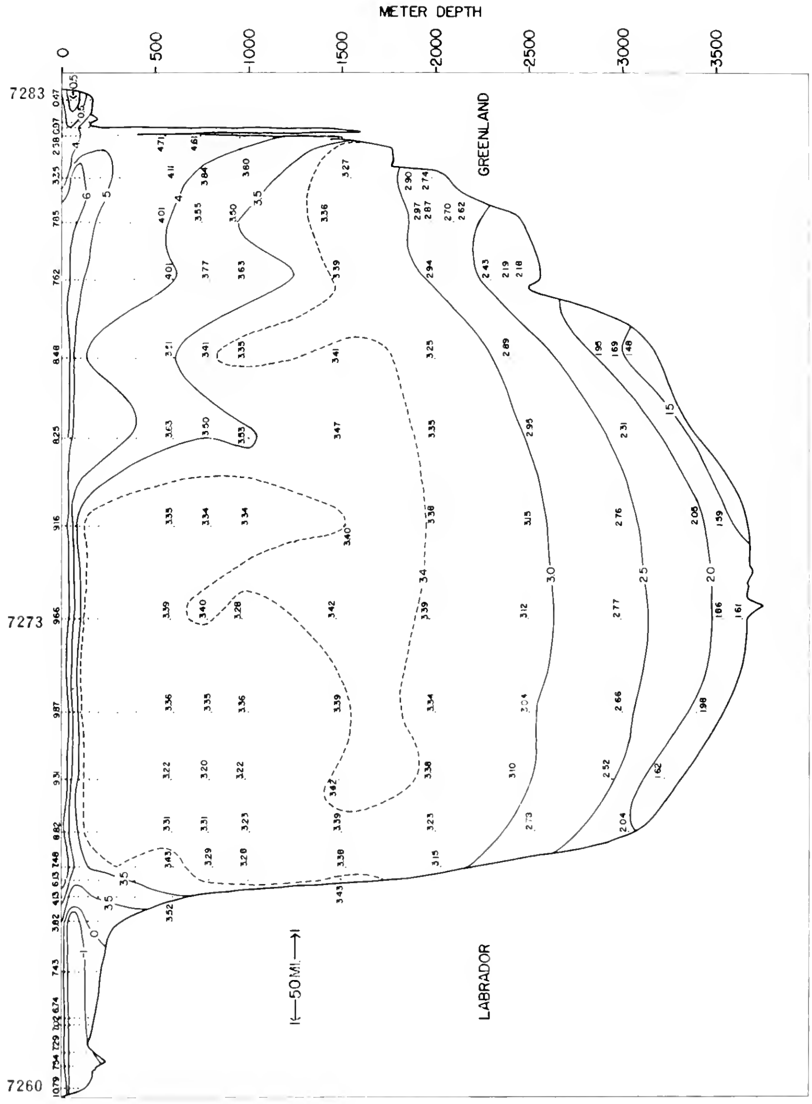

FIGURE 52. Temperature distribution along section between South Wolf Island, Labrador and Cape Farewell, Greenland 5–9 August, 1959.

shoal off Hamilton Inlet is apparent in the current pattern off South Wolf Island. On the Greenland side, the Irminger Current component and the East Greenland Current component of the West Greenland Current are not distinguishable in figure 51. The contributions of each of these components, however, can be seen in figures 52 and 53, the temperature and salinity distributions. The temperature distribution appears to be normal but the salinity distribution in the deep water at station 7277 shows an anomalous condition with an intrusion of 34.84‰ water

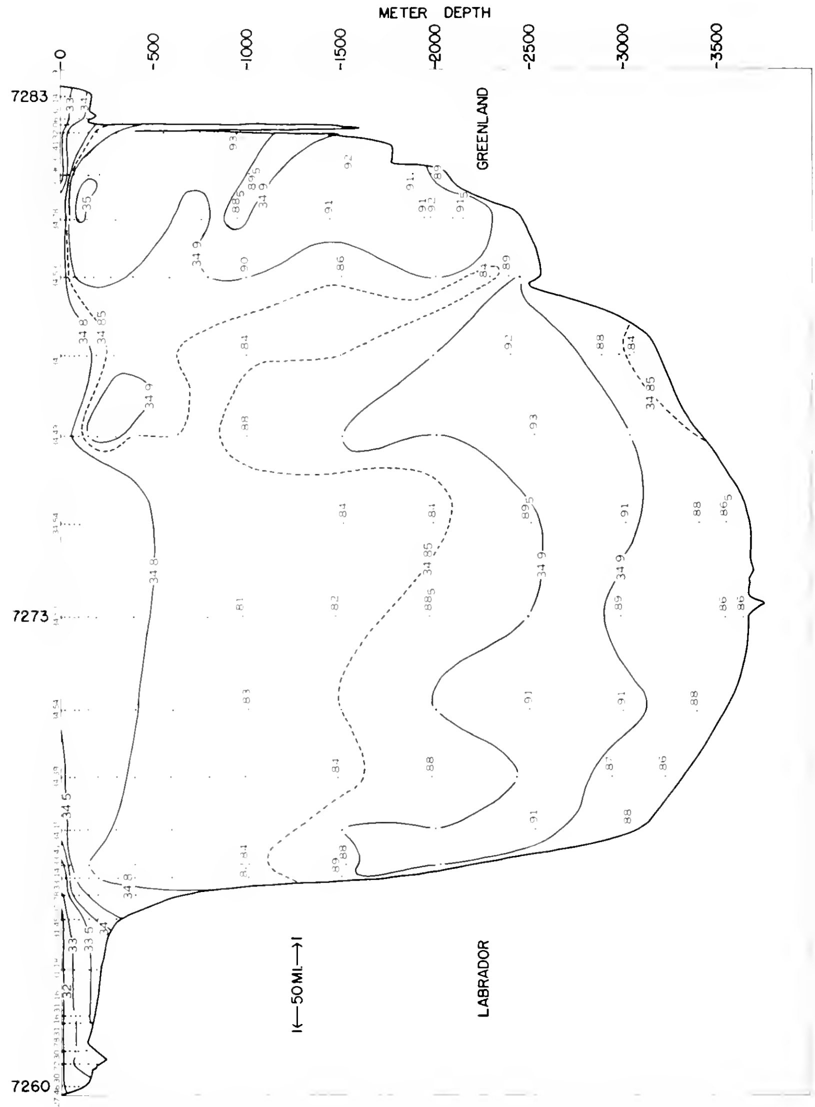

FIGURE 53.—Salinity distribution along section between South Wolf Island, Labrador and Cape Farewell, Greenland 5–9 August, 1959.

into an area where water of 34.90‰ is predominant. Figure 52 does not show a corresponding distortion of the isotherms in this vicinity.

Figure 50 shows a schematic representation of approximate volume transport in millions of cubic meters per second for the second, third, fourth, and postseason cruises. Time has not yet permitted a full evaluation of the volume transport. A more complete analysis of volume and heat transports will be reported in a subsequent bulletin of this series.

TABLE OF OCEANOGRAPHIC DATA

The data collected in 1959 are tabulated below. The individual station headings give the station number, date, geographical position, depth of water and dynamic height of the sea surface used in the construction of the dynamic topographic charts shown in figures 44, 45, 46, 47, 48, and 51. The depths of water are rough approximations being the uncorrected sonic soundings based on a sounding velocity of 800 fathoms per second and containing an additional mechanical speed error of about 1/60. Where the depths of scaled values are enclosed in parentheses, the data are based on extrapolated vertical distribution curves of temperature or salinity or both. Asterisks appearing before observed temperatures indicate that these temperatures were determined from the depth of reversal and the corrected reading of an unprotected thermometer. The symbol σ_t signifies 1,000 (density − 1) at atmospheric pressure and temperature t.

TABLE OF OCEANOGRAPHIC DATA
STATIONS OCCUPIED IN 1959

Observed values			Scaled values				Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t	Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
Station 6890; 5 April; 41°59′N., 50°58′W.; depth 3,200 m.; dynamic height 971.016.							Station 6891; 6 April; 42°00′N., 51°57′W.; depth 3,731 m.; dynamic height 971.036.						
0	3.65	33.18	0	3.65	33.18	26.39	0	3.47	33.26	0	3.47	33.26	26.47
26	3.03	33.20	25	3.05	33.20	26.47	25	4.60	33.52	25	4.60	33.52	26.57
51	2.57	33.22	50	2.60	33.22	26.52	51	6.23	33.93	50	6.15	33.92	26.70
77	2.18	33.37	75	2.20	33.35	26.65	76	7.98	34.45	75	7.90	34.45	26.88
103	1.58	33.70	100	1.60	33.63	26.92	102	10.44	35.15	100	10.35	35.14	27.02
153	3.33	34.30	150	3.25	34.29	27.31	152	8.44	34.96	150	8.45	34.96	27.19
205	2.43	34.26	200	2.50	34.26	27.36	204	7.69	34.94	200	7.70	34.94	27.29
308	3.92	34.77	300	3.80	34.74	27.62	306	6.50	35.015	300	6.55	35.01	27.51
338	4.38	34.855	400	4.60	34.92	27.68	423	5.42	35.00	400	5.60	35.00	27.62
514	4.73	34.99	600	4.60	34.99	27.73	634	4.29	34.945	600	4.40	34.95	27.72
695	4.45	34.995	(800)	4.25	34.98	27.76	845	4.14	34.96	800	4.15	34.96	27.76
			(1,000)	3.90	34.93	27.76	1,057	4.03	34.965	1,000	4.05	34.96	27.77

Station 6892; 6 April; 42°20.5′N., 51°25′W.; depth 2,834 m.; dynamic height 970.995.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.93	33.23	0	2.93	33.23	26.50
25	2.84	33.34	25	2.84	33.34	26.60
52	2.82	33.52	50	2.85	33.52	26.74
77	0.03	33.53	75	0.10	33.53	26.93
103	4.78	34.26	100	4.35	34.20	27.13
154	1.75	34.21	150	1.80	34.21	27.38
205	4.64	34.66	200	4.40	34.62	27.46
308	4.82	34.83	300	4.80	34.82	27.58
424	4.64	34.91	400	4.70	34.90	27.65
630	4.49	34.965	600	4.50	34.96	27.72
831	4.20	34.96	800	4.25	34.96	27.75
1,035	3.91	34.94	1,000	3.95	34.94	27.76
1,553	3.54	34.92				

Station 6893; 6 April; 42°45.5′N., 51°04′W.; depth 1,829 m.; dynamic height 971.044.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.48	33.19	0	1.48	33.19	26.58
19	−0.12	33.34	25	−0.15	33.25	26.72
38	−0.26	33.36	50	−0.35	33.40	26.85
57	−0.38	33.42	75	−0.45	33.47	26.92
77	−0.38	33.48	100	3.20	34.10	27.14
114	5.80	34.50	150	0.90	33.96	27.24
152	0.78	33.95	200	1.50	34.10	27.31
229	1.95	34.18	300	2.40	34.34	27.43
389	2.83	34.53	400	2.90	34.55	27.56
585	3.93	34.83	600	3.95	34.83	27.67
782	3.91	34.85	800	3.90	34.86	27.71
979	4.14	34.935	1,000	4.15	34.93	27.73
1,479	3.54	34.90				

Station 6894; 6 April; 42°57.5′N., 50°58′W.; depth 1,024 m.; dynamic height 971.095.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.69	33.22	0	0.69	33.22	26.65
26	0.56	33.24	25	0.60	33.24	26.68
52	0.00	33.33	50	0.00	33.33	26.78
78	−0.31	33.41	75	−0.30	33.40	26.85
104	−0.38	33.44	100	−0.40	33.43	26.88
155	−0.34	33.58	150	−0.35	33.56	26.98
208	0.00	33.72	200	−0.10	33.70	27.08
312	3.42	34.52	300	2.90	34.42	27.46
406	2.73	34.54	400	3.55	34.53	27.47
609	3.70	34.78	600	3.70	34.77	27.66
812	3.78	34.86	800	3.80	34.85	27.71
1,015	3.73	34.88	1,000	3.75	34.88	27.73

Station 6895; 6 April; 43°01.5′N., 50°52′W.; depth 439 m.; dynamic height 971.130.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.75	32.22	0	2.75	32.22	25.71
24	0.74	33.12	25	0.65	33.12	26.58
47	0.12	33.20	50	0.05	33.22	26.69
71	−0.37	33.38	75	−0.40	33.39	26.85
95	−0.39	33.44	100	−0.40	33.46	26.91
142	−0.20	33.64	150	−0.15	33.66	27.06
189	0.10	33.76	200	0.20	33.79	27.14
284	1.06	34.06	300	1.15	34.09	27.32
331	1.29	34.13	(400)	1.70	34.23	27.39

Station 6896; 6 April; 43°04.5′N., 50°47′W.; depth 168 m.; dynamic height 971.152.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.76	32.18	0	2.76	32.18	25.68
27	0.80	32.64	25	0.85	32.61	26.17
53	1.37	32.98	50	1.35	32.96	26.40
80	−0.22	33.35	75	−0.05	33.30	26.75
107	−0.26	33.41	100	−0.30	33.39	26.84
159	0.23	33.78	150	0.10	33.72	27.09

Station 6897; 6 April; 43°09.5′N., 50°36′W.; depth 91 m.; dynamic height 971.161.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.68	32.22	0	2.68	32.22	25.71
25	0.70	32.54	25	0.70	32.54	26.11
50	0.53	32.78	50	0.53	32.78	26.31
75	−0.15	33.22	75	−0.15	33.22	26.70

Station 6898; 6 April; 43°20′N., 50°16′W.; depth 64 m.; dynamic height 971.192.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.38	32.21	0	2.38	32.21	25.73
25	1.91	32.20	25	1.91	32.20	25.76
51	1.31	32.24	50	1.35	32.24	25.83

Station 6899; 6 April; 43°00′N., 50°14′W.; depth 95 m.; dynamic height 971.149.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.81	32.46	0	1.81	32.46	25.97
24	0.77	32.56	25	0.70	32.57	26.14
47	0.04	33.07	50	−0.05	33.11	26.60
71	−0.20	33.32	75	−0.20	33.32	26.78

Station 6900; 7 April; 42°44′N., 50°14′W.; depth 327 m.; dynamic height 971.123.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.76	32.54	0	1.76	32.54	26.05
25	0.12	33.23	25	0.12	33.23	26.70
50	−0.31	33.30	50	−0.31	33.30	26.76
75	−0.35	33.40	75	−0.35	33.40	26.85
100	−0.34		100	−0.34	33.43	26.87
150	−0.26	33.50	150	−0.26	33.50	26.93
200	0.03	33.68	200	0.03	33.68	27.06
300	0.91	34.01	300	0.91	34.01	27.28

Station 6901; 7 April; 42°34.5′N., 50°16′W.; depth 2,058 m.; dynamic height 971.046.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.31	32.95	0	1.31	32.95	26.40
25	0.07	33.22	25	0.07	33.22	26.69
50	−0.45	33.37	50	−0.45	33.37	26.83
75	−0.31	33.44	75	−0.31	33.44	26.88
99	−0.31	33.57	100	−0.30	33.57	26.99
149	0.27	33.82	150	0.30	33.83	27.16
199	1.34	34.20	200	1.35	34.20	27.40
298	2.40	34.46	300	2.40	34.46	27.53
404	2.94	34.58	400	2.90	34.57	27.58
606	3.86	34.79	600	3.85	34.78	27.64
808	3.94	34.86	800	3.95	34.86	27.70
1,010	3.72	34.88	1,000	3.75	34.88	27.73
1,516	3.74	34.93				

Station 6902; 7 April; 42°24.5′N., 50°11′W.; depth 2,651 m.; dynamic height 970.989.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.41	33.27	0	0.41	33.27	26.71
25	−0.40	33.34	25	−0.40	33.34	26.81
51	−0.55	33.42	50	−0.55	33.42	26.88
76	−0.14	33.68	75	−0.15	33.68	27.07
102	0.40	33.87	100	0.35	33.86	27.19
152	0.97	34.09	150	0.95	34.09	27.33
203	1.47	34.25	200	1.45	34.24	27.42
305	2.75	34.55	300	2.65	34.54	27.57
414		34.72	400	3.50	34.70	27.62
621	3.89	34.865	600	3.90	34.85	27.70
829	3.76	34.88	800	3.75	34.88	27.73
1,033	3.64	34.88	1,000	3.65	34.88	27.74
1,510	3.50	34.90				

Station 6903; 7 April; 42°00.5′N., 50°12′W.; depth 3,566 m.; dynamic height 970.911.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.05	33.23	0	4.05	33.23	26.39
25	2.64	34.07	25	2.64	34.07	27.20
51	3.87	34.49	50	3.85	34.48	27.41
76	3.95	34.60	75	3.95	34.60	27.49
102	4.20	34.66	100	4.20	34.66	27.52
152	4.23	34.72	150	4.20	34.72	27.57
202	4.36	34.76	200	4.35	34.76	27.58
304	4.55	34.82	300	4.55	34.82	27.61
482	4.54	34.94	400	4.55	34.89	27.66
679	4.20	34.95	600	4.30	34.94	27.72
880	4.21	34.98	800	4.20	34.97	27.77
1,077	4.01	34.98	1,000	4.10	34.98	27.78
1,176	3.67	34.96				

Station 6904; 7 April; 41°31′N., 50°12′W., depth 3,749 m.; dynamic height 971.275.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.26	35.89	0	15.26	35.89	26.62
25	15.24	35.89	25	15.24	35.89	26.63
48	15.08	35.90	50	15.00	35.90	26.68
73	14.29	35.77	75	14.30	35.77	26.74
97	14.10	35.73	100	14.10	35.72	26.74
146	13.54	35.56	150	13.50	35.56	26.74
195	13.26	35.62	200	13.15	35.62	26.86
292	11.41	35.38	300	11.05	35.35	27.05
267	11.56	35.42	400	8.80	35.11	27.26
384	9.06	35.14	600	6.40	34.97	27.50
491	7.41	34.98	800	4.40	34.85	27.64
594	6.43	34.975	(1,000)	3.90	34.90	27.74
812	4.35	34.85				

Station 6905; 7 April; 41°05.5′N., 50°12′W.; depth 3,749 m.; dynamic height 971.415.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	17.75	36.29	0	17.75	36.29	26.33
25	17.76	36.30	25	17.76	36.30	26.34
51	17.71	36.29	50	17.70	36.29	26.35
76	17.41	36.25	75	17.45	36.24	26.37
102	16.81	36.22	100	16.85	36.22	26.50
152	16.29	36.16	150	16.30	36.16	26.59
203	15.34	36.00	200	15.35	36.01	26.69
305	14.09	35.79	300	14.15	35.80	26.79
417	12.32	35.55	400	12.65	35.59	26.93
625	7.61	35.07	600	8.20	35.12	27.36
836	4.88	34.935	800	5.10	34.95	27.64
1,046	4.66	35.00	1,000	4.70	34.99	27.72
1,573	3.86	34.96				

Station 6906; 8 April; 42°07′N., 49°11′W.; depth 3,200 m.; dynamic height 970.995.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.92	33.23	0	3.92	33.23	26.41
25	2.44	33.34	25	2.44	33.34	26.63
51	2.25	33.45	50	2.25	33.44	26.73
76	6.43	34.50	75	6.30	34.45	27.10
102	7.05	34.69	100	7.00	34.67	27.18
152	7.07	34.83	150	7.05	34.83	27.29
202	4.67	34.59	200	4.70	34.59	27.40
304	5.22	34.87	300	5.20	34.87	27.57
407	4.24	34.84	400	4.25	34.84	27.65
611	4.47	34.96	600	4.45	34.96	27.73
816	4.07	34.95	800	4.10	34.95	27.76
1,019	3.95	34.95	1,000	3.95	34.95	27.77
1,528	3.56	34.935				

Station 6907; 8 April; 41°31′N., 48°51′W.; depth 3,292 m.; dynamic height 970.942.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.98	33.19	0	4.98	33.19	26.27
25	8.39	34.76	25	8.39	34.76	27.04
50	3.62	34.29	50	3.62	34.29	27.28
75	4.84	34.28	75	4.84	34.28	27.13
100	4.18	34.60	100	4.18	34.60	27.47
150	3.42	34.54	150	3.42	34.54	27.50
200	3.63	34.62	200	3.63	34.62	27.54
300	3.66	34.66	300	3.66	34.66	27.57
407	4.58	34.87	400	4.55	34.87	27.65
572	3.92	34.84	600	3.95	34.86	27.70
738	4.26	34.94	800	4.30	34.97	27.75
913	4.34	34.99	1,000	4.15	34.97	27.77
1,282	3.59	34.91				

Station 6908; 8 April; 40°59.5′N., 48°26′W.; depth 3,658 m.; dynamic height 971.245.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.51	35.22	0	12.51	35.22	26.68
26	12.83	35.35	25	12.80	35.35	26.72
52	13.03	35.51	50	13.00	35.51	26.81
78	12.78	35.45	75	12.80	35.46	26.81
104	12.58	35.40	100	12.60	35.41	26.81
155	12.26	35.34	150	12.25	35.34	26.82
206	12.25	35.40	200	12.25	35.40	26.87
310	11.18	35.38	300	11.30	35.38	27.03
390	9.41	35.20	400	9.25	35.18	27.24
587	6.18	35.00	600	6.05	34.99	27.56
786	4.78	34.975	800	4.75	34.98	27.70
984	4.41	34.985	1,000	4.40	34.98	27.74
1,486	3.78	34.95				

Station 6909; 9 April; 41°35′N., 47°16′W.; depth 4,390 m.; dynamic height 971.122.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.56	33.61	0	6.56	33.61	26.41
24	9.21	34.40	25	9.20	34.41	26.65
48	8.92	34.52	50	8.95	34.52	26.77
73	9.23	34.62	75	9.40	34.65	26.80
97	10.87	35.04	100	10.85	35.03	26.84
145	10.49	35.01	150	10.50	35.03	26.90
193	10.59	35.25	200	10.40	35.23	27.08
290	6.88	34.79	300	6.50	34.78	27.33
384	5.01	34.72	400	4.95	34.73	27.48
579	4.59	34.90	600	4.60	34.91	27.67
775	4.50	34.97	800	4.45	34.97	27.74
972	4.03	34.95	1,000	4.00	34.95	27.77
1,469	3.79	34.96				

Station 6910; 9 April; 42°02.5′ N., 47°49′ W.; depth 3,828 m.; dynamic height 971.090.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.00	33.53	0	6.00	33.53	26.41
24	6.25	33.82	25	6.30	33.84	26.62
49	7.62	34.17	50	7.75	34.18	26.68
73	8.50	34.40	75	8.45	34.40	26.75
98	7.89	34.46	100	7.95	34.48	26.89
147	9.47	34.97	150	0.45	34.97	27.04
195	8.98	35.00	200	8.80	34.99	27.16
293	5.85	34.71	300	5.80	34.71	27.37
412	5.41	34.89	400	5.45	34.88	27.54
621	4.24	34.92	600	4.35	34.92	27.71
831	4.11	34.93	800	4.10	34.93	27.74
1,037	4.05	34.96	1,000	4.05	34.95	27.76
1,549	3.57	34.925				

Station 6911; 9 April; 42°24′ N., 48°30′ W.; depth 3,365 m.; dynamic height 971.017.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.14	33.18	0	4.14	33.18	26.34
25	5.22	33.61	25	5.22	33.61	26.57
51	5.50	33.85	50	5.45	33.84	26.73
76	6.72	34.40	75	6.70	34.38	26.99
102	6.65	34.55	100	6.65	34.53	27.11
152	8.33	35.00	150	8.25	34.99	27.25
202	5.12	34.57	200	5.25	34.58	27.33
304	3.27	34.56	300	3.25	34.56	27.53
393	3.57	34.71	400	3.60	34.72	27.63
595	4.72	34.99	600	4.70	34.99	27.72
800	4.15	34.995	800	4.15	34.96	27.76
1,001	3.85	34.94	1,000	3.85	34.94	27.77
1,503	3.55	34.935				

Station 6912; 9 April; 42°44′ N., 49°08′ W.; depth 2,524 m.; dynamic height 970.909.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.79	33.73	0	2.79	33.73	26.91
26	1.41	33.92	25	1.40	33.91	27.16
52	1.63	34.08	50	1.65	34.07	27.28
78	1.81	34.24	75	1.80	34.21	27.38
104	3.51	34.48	100	3.15	34.44	27.44
155	4.92	34.77	150	4.85	34.74	27.51
208	5.36	34.92	200	5.35	34.90	27.57
312	5.10	34.96	300	5.15	34.96	27.65
400	4.85	34.98	400	4.85	34.98	27.69
599	4.52	34.99	600	4.55	34.99	27.74
799	4.22	34.98	800	4.20	34.98	27.27
1,000	3.83	34.94	1,000	3.85	34.94	27.77
1,507	3.44	34.91				

Station 6913; 9 April; 43°24′ N., 48°42′ W.; depth 1,829 m.; dynamic height 970.957.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.18	33.24	0	−0.18	33.24	26.72
25	0.73	33.44	25	0.73	33.44	26.83
51	2.63	33.97	50	2.65	33.96	27.11
76	2.30	34.01	75	2.30	34.00	27.17
102	2.16	34.06	100	2.15	34.05	27.22
152	3.30	34.40	150	3.25	34.39	27.39
203	3.72	34.57	200	3.70	34.56	27.49
305	4.47	34.84	300	4.45	34.82	27.62
404	4.36	34.88	400	4.35	34.88	27.67
608	3.97	34.89	600	4.00	34.89	27.72
813	3.71	34.89	800	3.75	34.89	27.74
1,013	3.52	34.885	1,000	3.55	34.89	27.76
1,511	3.41	34.90				

Station 6914; 10 April; 43°09′ N., 48°10′ W.; depth 3,017 m.; dynamic height 971 009.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.81	33.55	0	5.81	33.55	26.45
25	5.72	33.56	25	5.72	33.56	26.47
51	6.26	33.97	50	6.20	33.95	26.72
76	9.33	34.88	75	9.30	34.87	26.99
102	8.16	34.83	100	8.30	34.84	27.12
152	5.55	34.64	150	5.55	34.63	27.33
204	6.47	34.83	200	6.40	34.82	27.38
306	3.87	34.63	300	3.90	34.63	27.52
425	5.09	34.98	400	4.90	34.92	27.65
638	4.54	34.99	600	4.60	34.99	27.73
853	4.21	34.97	800	4.25	34.97	27.76
1,064	3.92	34.95	1,000	4.00	34.96	27.78
1,586	3.43	34.915				

Station 6915; 10 April; 42°51′ N., 17°32′ W.; depth 3,603 m.; dynamic height 971.196.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.67	34.99	0	11.67	34.99	26.67
25	11.74	35.00	25	11.74	35.00	26.66
51	13.67	35.62	50	13.65	35.62	26.76
77	13.70	35.65	75	13.70	35.65	26.77
103	13.53	35.63	100	13.55	35.63	26.78
153	13.13	35.55	150	13.15	35.55	26.80
205	13.08	35.61	200	13.10	35.61	26.86
308	9.97	35.24	300	10.15	35.26	27.15
377	8.64	35.15	400	8.20	35.13	27.36
566	5.65	34.995	600	5.40	35.00	27.65
756	4.86	35.00	800	4.70	35.00	27.73
948	4.26	34.98	1,000	4.30	34.97	27.75
1,433	3.79	34.95				

Station 6916; 10 April; 42°39′ N., 46°49′ W.; depth 3,932 m.; dynamic height 971.456.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.16	36.02	0	15.16	36.02	26.74
25	15.22	36.02	25	15.22	36.02	26.73
50	15.21	36.02	50	15.21	36.02	26.73
76	15.23	36.02	75	15.20	36.02	26.73
101	15.23	36.02	100	15.25	36.02	26.72
151	15.28	36.04	150	15.25	36.04	26.73
201	15.29	36.07	200	15.30	36.07	26.75
302	15.02	36.04	300	15.00	36.04	26.79
405	13.27	35.72	400	13.35	35.74	26.91
609	9.50	35.26	600	10.05	35.28	27.18
813	6.79	35.17	800	6.90	35.17	27.59
1,017	5.78	35.16	1,000	5.85	35.16	27.72
1,535	3.86	34.95				

Station 6917; 10 April; 42°24′ N., 16°17′ W.; depth 4,481 m.; dynamic height 971.503.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.36	36.00	0	15.36	36.00	26.68
26	15.38	36.00	25	15.35	36.00	26.68
52	15.38	36.00	50	15.40	36.00	26.67
78	15.34	35.98	75	15.35	35.99	26.67
104	14.70	35.83	100	14.80	35.85	26.68
155	14.36	35.77	150	14.35	35.78	26.73
207	15.05	35.99	200	14.95	35.98	26.76
311	14.72	35.945	300	14.80	35.96	26.77
399	13.61	35.75	400	13.60	35.75	26.87
602	10.58	35.36	600	10.60	35.36	27.15
807	6.92	35.04	800	7.00	35.04	27.47
1,009	6.27	35.20	1,000	6.35	35.20	27.68
1,514	4.01	34.96				

STATIONS OCCUPIED IN 1959—Continued

Station 6918; 10 April; 42°48′ N., 45°52′ W.; depth 4,618 m.; dynamic height 971.510.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.53	35.89	0	14.53	35.89	26.78
24	14.57	35.89	25	14.55	35.89	26.77
49	14.57	35.89	50	14.55	35.89	26.77
73	14.56	35.89	75	14.55	35.89	26.77
98	14.59	35.89	100	14.60	35.89	26.76
146	14.76	35.95	150	14.75	35.95	26.78
195	14.79	35.97	200	14.75	35.97	26.79
293	14.75	-----	300	14.75	35.97	26.79
343	14.77	35.98	400	14.35	35.90	26.82
519	12.55	35.62	600	10.90	35.39	27.11
700	8.91	35.14	800	6.90	34.99	27.44
879	5.82	34.93	1,000	5.10	34.93	27.62
1,334	4.16	34.915				

Station 6919; 10 April; 43°12.5′ N., 45°28′ W.; depth 4,663 m., dynamic height 971.496.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.65	35.95	0	14.65	35.95	26.80
24	14.68	35.96	25	14.65	35.96	26.81
48	14.67	35.955	50	14.65	35.95	26.80
73	14.67	35.95	75	14.65	35.95	26.80
97	14.70	35.95	100	14.70	35.95	26.79
145	14.70	35.95	150	14.70	35.95	26.79
193	14.75	35.96	200	14.75	25.96	26.78
290	14.79	36.00	300	14.75	36.00	26.82
394	14.72	35.99	400	14.70	35.99	26.82
592	11.26	35.45	600	11.10	35.48	27.15
791	7.39	35.05	800	7.20	35.04	27.44
989	4.88	34.905	1,000	4.85	34.91	27.64
1,480	4.04	34.95				

Station 6920; 11 April; 43°21′ N., 46°04′ W.; depth 4,572 m.; dynamic height 971.470.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.61	35.90	0	14.61	35.90	26.77
23	14.67	35.90	25	14.65	35.90	26.76
46	14.68	35.91	50	14.70	35.91	26.76
70	14.71	35.92	75	14.70	35.92	26.77
93	14.78	35.92	100	14.75	35.93	26.76
139	14.91	36.03	150	14.90	36.03	26.81
185	14.91	36.03	200	14.90	36.03	26.81
278	14.88	36.03	300	14.85	36.03	26.82
338	14.84	36.02	400	14.35	35.91	26.83
521	12.17	35.58	600	10.55	35.36	27.16
715	8.20	35.12	800	6.70	35.07	27.54
905	5.83	35.025	1,000	5.35	35.02	27.67
1,105	4.31	34.985				

Station 6921; 11 April; 43°31′ N., 46°41′ W.; depth 4,207 m.; dynamic height 971.390.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.98	35.97	0	14.98	35.97	26.71
22	14.99	35.97	25	15.00	35.97	26.74
44	15.01	35.97	50	15.00	35.97	26.74
66	15.02	35.97	75	15.05	35.97	26.73
87	15.04	35.98	100	15.05	35.98	26.73
132	15.06	35.99	150	15.15	36.02	26.74
176	15.36	36.08	200	15.30	36.05	26.73
263	14.87	35.95	300	14.25	35.87	26.82
420	11.82	35.50	400	12.20	35.56	27.00
643	7.27	35.06	600	8.15	35.11	27.36
875	5.55	35.05	800	5.90	35.05	27.62
1,101	4.38	34.955	1,000	4.75	34.99	27.71
1,676	3.81	34.95				

Station 6922; 11 April; 43°41′ N., 47°19′ W.; depth 4,115 m.; dynamic height 971.166.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.29	34.45	0	9.29	34.45	26.66
28	9.35	34.45	25	9.35	34.45	26.65
57	9.70	34.67	50	9.60	34.61	26.74
85	10.51	34.88	75	10.20	34.80	26.78
113	11.23	35.09	100	10.90	35.00	26.81
183	12.16	35.40	150	11.85	35.28	26.85
226	9.57	34.94	200	11.15	35.26	26.97
339	8.63	35.10	200	9.00	35.05	27.18
424	5.96	34.84	400	6.65	34.91	27.42
639	4.37	34.89	600	4.45	34.87	27.66
859	4.47	34.975	800	4.45	34.95	27.72
1,073	4.12	34.965	1,000	4.25	34.97	27.76
1,608	3.45	34.91				

Station 6923; 11 April; 43°52′ N., 48°02′ W.; depth 3,676 m.; dynamic height 970.906.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.09	33.92	0	3.09	33.92	27.04
24	3.13	33.92	25	3.15	33.92	27.03
48	3.19	34.14	50	3.25	34.15	27.20
72	4.32	34.40	75	4.50	34.44	27.31
97	5.54	34.67	100	5.50	34.67	27.38
144	3.00	34.44	150	3.05	34.46	27.47
192	4.36	34.77	200	4.35	34.78	27.59
289	4.16	34.84	300	4.15	34.85	27.67
390	4.02	34.88	400	4.00	34.87	27.71
592	3.85	34.90	600	3.85	34.90	27.74
799	3.88	34.93	800	3.90	34.93	27.76
999	3.62	34.92	1,000	3.60	34.92	27.79
1,500	3.42	34.905				

Station 6924; 11 April; 44°00′ N., 48°30′ W.; depth 3,292 m.; dynamic height 970.957.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.38	33.99	0	3.38	33.99	27.06
26	3.40	34.00	25	3.40	34.00	27.07
52	2.25	33.98	50	2.25	33.98	27.15
78	2.24	34.00	75	2.25	34.00	27.17
104	2.38	34.04	100	2.35	34.04	27.19
155	2.48	34.24	150	2.45	34.21	27.32
208	4.05	34.59	200	3.90	34.55	27.46
312	4.15	34.80	300	4.45	34.78	27.58
413	4.26	34.87	400	4.30	34.86	27.66
626	3.96	34.885	600	4.00	34.88	27.71
831	3.76	34.905	800	3.80	34.90	27.75
1,037	3.58	34.91	1,000	3.60	34.91	27.78
1,549	3.35	34.91				

Station 6925; 11-12 April; 44°05′ N., 48°50′ W.; depth 1,646 m.; dynamic height 970.928.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.05	33.39	0	0.05	33.39	26.83
27	−0.34	33.49	25	−0.35	33.49	26.92
53	0.60	33.94	50	0.40	33.91	27.23
80	2.79	34.28	75	2.45	34.25	27.35
106	3.04	34.36	100	3.00	34.34	27.38
158	2.32	34.46	150	2.35	34.45	27.52
212	2.49	34.52	200	2.45	34.51	27.56
318	3.32	34.69	300	3.25	34.68	27.62
431	3.52	34.69	400	3.75	34.79	27.66
502	3.92	34.86	600	3.80	34.87	27.73
674	3.75	34.87	800	3.80	34.89	27.74
853	3.82	34.905	1,000	3.75	34.90	27.75
1,310	3.58	34.90				

Station 6926; 12 April; 44°07.5′ N., 48°56′ W.; depth 631 m.; dynamic height 970.999.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.60	33.22	0	−0.60	33.22	26.71
26	−0.60	33.21	25	−0.60	33.21	26.71
52	−0.19	33.38	50	−1.15	33.37	26.86
79	−0.85	33.53	75	−0.90	33.51	26.97
104	−0.38	33.64	100	−0.45	33.63	27.04
157	1.37	34.05	150	1.15	34.00	27.25
209	2.07	34.33	200	2.00	34.30	27.43
313	2.63	34.56	300	2.60	34.54	27.57
375	2.80	34.60	400	2.90	34.62	27.62
604	3.58	34.83	600	3.60	34.82	27.71

Station 6927; 12 April; 44°09″ N., 49° 04′ W.; depth 183 m.; dynamic height 971.107.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.81	33.14	0	−0.81	33.14	26.66
26	−0.80	33.14	25	−0.80	33.14	26.66
53	−0.87	33.31	50	−0.85	33.29	26.77
79	−1.04	33.42	75	−1.00	33.41	26.89
106	−0.96	33.44	100	−1.00	33.43	26.90
158	−0.41	33.59	150	−0.50	33.57	27.00

Station 6928; 12 April; 44.10.5′ N., 49°11′ W.; depth 91 m.; dynamic height 971.115.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.63	33.16	0	−0.63	33.16	26.67
26	−0.62	33.16	25	−0.60	33.16	26.66
53	−0.74	33.17	50	−0.75	33.17	26.68
79	−0.65	33.23	75	−0.65	33.22	26.72

Station 6929; 12 April; 44°13′ N., 49°23′ W.; depth 48 m.; dynamic height 971.124.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.16	33.02	0	1.16	33.02	26.47
25	0.03	33.21	25	0.03	33.21	26.69
40	−0.10	33.25				

Station 6930; 12 April; 44°54′ N., 49°25′ W.; depth 80 m.; dynamic height 971.126.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.26	33.06	0	0.26	33.06	26.55
25	−0.24	33.20	25	−0.24	33.20	26.69
51	−0.34	33.26	50	−0.35	33.26	26.73
71	−0.34	33.26	(75)	−0.35	33.26	26.73

Station 6931; 12 April; 44°53.5′ N., 49°22′ W.; depth 90 m.; dynamic height 971.129.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.18	33.07	0	0.18	33.07	26.56
26	−0.03	33.10	25	0.00	33.10	26.59
51	−0.37	33.24	50	−0.35	33.23	26.71
77	−0.52	33.26	75	−0.50	33.26	26.74

Station 6932; 12 April; 44°50.5′ N., 48°55′ W.; depth 732 m.; dynamic height 971.101.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.89	33.15	0	−0.89	33.15	26.67
25	−0.99	33.16	25	−0.94	33.16	26.68
50	−1.13	33.22	50	−1.13	33.22	26.74
76	−1.31	33.33	75	−1.30	33.33	26.83
101	−1.04	33.46	100	−1.05	33.45	26.92
151	−0.39	33.58	150	−0.40	33.58	27.00
201	−0.15	33.66	200	−0.15	33.66	27.06
302	1.45	34.16	300	1.40	34.15	27.36
407	2.08	34.38	400	2.05	34.37	27.49
617	3.20	34.69	600	3.15	34.67	27.63

Station 6933; 12 April; 44°49′ N., 48°41′ W.; depth 1,554 m.; dynamic height 970.975.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.55	33.39	0	−0.55	33.39	26.85
25	−0.57	33.40	25	−0.57	33.40	26.86
50	−0.46	33.64	50	−0.46	33.64	27.05
75	0.56	33.93	75	0.56	33.93	27.23
100	2.31	34.20	100	2.31	34.20	27.33
150	2.62	34.26	150	2.62	34.26	27.35
199	3.32	34.38	200	3.30	34.39	27.39
299	2.50	34.49	300	2.50	34.49	27.54
390	2.96	34.64	400	3.00	34.65	27.63
584	3.97	34.85	600	3.95	34.85	27.69
778	3.70	34.87	800	3.70	34.87	27.74
971	3.62	34.88	1,000	3.60	34.88	27.75
1,150	3.55	34.89				

Station 6934; 12 April; 44°46.5′ N., 48°26′ W.; depth 2,012 m.; dynamic height 970.906.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.31	33.82	0	1.31	33.82	27.10
25	1.32	33.84	25	1.32	33.84	27.11
51	3.11	34.38	50	3.10	34.38	27.40
76	3.29	34.46	75	3.30	34.46	27.45
102	3.10	34.47	100	3.10	34.47	27.48
152	3.62	34.62	150	3.60	34.61	27.54
204	3.70	34.70	200	3.70	34.69	27.59
306	4.08	34.82	300	4.05	34.82	27.66
403	3.92	34.84	400	3.90	34.83	27.68
605	3.94	34.88	600	3.95	34.88	27.71
809	3.66	34.875	800	3.65	34.88	27.74
1,008	3.58	34.88	1,000	3.60	34.88	27.75
1,503	3.45	34.91				

Station 6935; 12–13 April; 44°43′ N., 48°03′ W.; depth 3,384 m.; dynamic height 970.973.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.11	33.99	0	3.11	33.99	27.09
24	3.19	33.99	25	3.20	33.99	27.08
49	3.20	33.99	50	3.20	33.99	27.08
73	2.97	34.01	75	2.95	34.01	27.12
98	2.71	34.04	100	2.70	34.04	27.16
146	2.84	34.11	150	2.85	34.12	27.22
195	3.18	34.30	200	3.25	34.33	27.34
293	4.45	34.76	300	4.45	34.77	27.58
378	4.26	34.85	400	4.20	34.85	27.67
570	3.91	34.875	600	3.90	34.88	27.72
764	3.77	34.895	800	3.75	34.89	27.74
959	3.55	34.89	1,000	3.55	34.89	27.76
1,456	3.42	34.90				

Station 6936; 13 April; 44°38.5′ N., 47°22′ W.; depth 3,768 m.; dynamic height 970.913.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.42	34.03	0	3.42	34.03	27.09
25	3.42	34.03	25	3.42	34.03	27.09
50	3.36	34.05	50	3.36	34.03	27.10
75	2.19	34.09	75	2.19	34.09	27.25
100	1.81	34.16	100	1.81	34.16	27.34
149	4.72	34.70	150	4.70	34.70	27.49
199	4.28	34.72	200	4.30	34.73	27.56
299	4.46	34.87	300	4.45	34.87	27.66
398	4.17	34.88	400	4.15	34.88	27.69
			(600)	3.85	34.90	27.74
			(800)	3.80	34.91	27.76
			(1,000)	3.65	34.91	27.77

Station 6937; 13 April; 44°21′ N., 46°33′ W.; depth 3,786 m.; dynamic height 970.965.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.69	33.79	0	4.69	33.79	26.77
26	4.73	33.80	25	4.75	33.80	26.77
51	2.99	33.92	50	3.00	33.91	27.04
77	8.22	34.93	75	8.20	34.93	27.20
102	6.32	34.65	100	6.45	34.65	27.24
153	5.45	34.64	150	5.50	34.65	27.36
204	5.16	34.75	200	5.15	34.74	27.47
306	5.44	34.96	300	5.45	34.95	27.60
406	5.28	35.00	400	5.30	35.00	27.66
612	4.67	35.00	600	4.70	35.00	27.73
821	3.75	34.90	800	3.80	34.90	27.75
1,026	3.76	34.92	1,000	3.75	34.92	27.77

Station 6938; 13 April; 44°25′ N., 45°58′ W.; depth 3,841 m.; dynamic height 971.034.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.41	33.79	0	5.41	33.79	26.69
26	5.63	33.79	25	5.65	33.79	26.66
51	5.68	33.91	50	5.70	33.91	26.76
77	5.97	33.94	75	5.95	33.94	26.75
102	4.15	33.94	100	4.20	33.95	26.95
153	6.75	34.60	150	6.70	34.59	27.15
204	6.38	34.71	200	6.40	34.71	27.29
306	5.20	34.82	300	5.25	34.82	27.53
402	5.04	34.92	400	5.05	34.92	27.63
609	4.00	34.88	600	4.00	34.88	27.71
818	3.96	34.92	800	3.95	34.92	27.75
1,022	3.71	34.90	1,000	3.75	34.90	27.75
1,529	3.50	34.91				

Station 6939; 13 April; 44°19.5′ N., 45°15′ W.; depth 4,390 m.; dynamic height 971.123.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.60	33.66	0	5.60	33.66	26.57
27	5.65	33.68	25	5.65	33.67	26.57
53	8.64	34.41	50	8.35	34.33	26.71
80	10.05	34.98	75	9.90	34.80	26.83
106	10.36	34.98	100	10.30	34.95	26.88
158		35.05	150	10.60	35.05	26.90
212	10.50	35.03	200	10.55	35.04	26.90
318	5.53	34.70	300	6.25	34.73	27.32
414	4.27	34.73	400	4.30	34.72	27.56
619	4.32	34.90	600	4.30	34.89	27.68
821	4.09	34.925	800	4.15	34.92	27.73
1,025	3.92	34.925	1,000	3.95	34.92	27.75
1,530	3.58	34.91				

Station 6940; 13 April; 44°50′ N., 45°14′ W.; depth 4,155 m.; dynamic height 970.986.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.22	34.02	0	5.22	34.02	26.89
25	5.20	34.02	25	5.20	34.02	26.90
49	5.14	34.02	50	5.20	34.03	26.90
74	6.89	34.57	75	6.95	34.58	27.11
98	7.16	34.66	100	7.15	34.66	27.15
147	4.83	34.54	150	4.80	34.54	27.35
196	4.51	34.52	200	4.50	34.52	27.37
294	4.44	34.77	300	4.45	34.78	27.58
406	4.49	34.88	400	4.50	34.88	27.65
612	4.02	34.89	600	4.05	34.89	27.71
823	3.78	34.88	800	3.80	34.88	27.73
1,030	3.61	34.89	1,000	3.65	34.89	27.75
1,551	3.52	34.91				

Station 6941; 14 April; 45°18.5′ N., 45°15′ W.; depth 4,155 m.; dynamic height 970.975.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.17	33.90	0	5.17	33.90	26.81
28	5.24	33.91	25	5.20	33.90	26.81
55	5.96	34.28	50	5.80	34.22	26.99
83	6.18	34.46	75	6.10	34.39	27.08
110	6.74	34.60	100	6.60	34.61	27.19
166	3.85	34.42	150	4.55	34.48	27.33
220	4.31	34.62	200	4.10	34.54	27.43
330	4.75	34.86	300	4.70	34.81	27.58
421	4.40	34.88	400	4.45	34.88	27.66
633	4.40	34.96	600	4.40	34.96	27.73
847	3.82	34.90	800	3.95	34.91	27.74
1,058	3.68	34.905	1,000	3.70	34.90	27.76
1,582	3.18	34.91				

Station 6942; 14 April; 45°20.5′ N., 45°59′ W.; depth, 3,475 m.; dynamic height 970.905.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.17	34.29	0	3.14	34.29	27.32
24	3.18	34.29	25	3.20	34.29	27.32
49	3.17	34.31	50	3.15	34.31	27.34
73	3.32	34.34	75	3.30	34.34	27.35
98	3.20	34.38	100	3.20	34.38	27.39
147	3.10	34.50	150	3.10	34.51	27.51
196	3.14	34.57	200	3.15	34.57	27.55
294	3.26	34.69	300	3.30	34.70	27.61
406	3.95	34.86	400	3.95	34.85	27.69
610	3.82	34.87	600	3.85	34.87	27.72
815	3.75	34.90	800	3.75	34.90	27.75
1,019	3.64	34.90	1,000	3.65	34.90	27.76
1,528	3.39	34.90				

Station 6943; 14 April; 45°19.5′ N., 46°40′ W.; depth 3,396 m.; dynamic height 970.944.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.37	34.23	0	3.37	34.23	27.25
26	3.37	34.23	25	3.40	34.23	27.25
52	3.39	34.24	50	3.40	34.23	27.25
79	3.37	34.28	75	3.35	34.27	27.29
105	3.41	34.33	100	3.40	34.32	27.33
156	4.32	34.51	150	4.25	34.48	27.36
209	4.39	34.64	200	4.40	34.62	27.46
314	3.80	34.72	300	3.85	34.71	27.59
391	3.85	34.78	400	3.85	34.79	27.65
587	4.28	34.93	600	4.25	34.93	27.72
781	3.63	34.86	800	3.65	34.86	27.73
978	3.71	34.88	1,000	3.70	34.88	27.74
1,458	3.45	34.91				

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t

Station 6944; 14 April; 45°19.5′ N., 47°24′ W.; depth 2,926 m.; dynamic height 970.933.

0	2.41	34.00	0	2.41	34.00	27.16
25	2.50	34.00	25	2.50	34.00	27.15
52	2.49	34.00	50	2.50	34.00	27.15
77	2.55	34.10	75	2.55	34.09	27.22
103	2.69	34.22	100	2.60	34.21	27.31
154	3.48	34.43	150	3.40	34.41	27.10
205	4.22	34.66	200	4.15	34.64	27.50
308	4.48	34.83	300	4.45	34.82	27.62
399	4.45	34.90	400	4.45	34.90	27.68
604	4.01	34.91	600	4.00	34.91	27.74
811	3.63	34.88	800	3.65	34.88	27.74
1,014	3.49	34.88	1,000	3.50	34.88	27.76
1,528	3.38	34.91				

Station 6945; 14 April; 45°29.5′ N., 47°55′ W.; depth 1,591 m.; dynamic height 970.930.

0	0.42	33.75	0	0.42	33.75	27.10
26	9.50	33.76	25	0.50	33.76	27.10
51	0.64	33.90	50	0.60	33.90	27.20
77	0.95	34.07	75	0.95	34.06	27.31
103	1.45	34.16	100	1.35	34.15	27.36
153	2.48	34.45	150	2.45	34.45	27.51
204	2.34	34.49	200	2.35	34.48	27.54
307	2.46	34.57	300	2.45	34.56	27.60
389	3.31	34.72	400	3.35	34.73	27.65
586	3.81	34.85	600	3.80	34.85	27.71
786	3.80	34.89	800	3.80	34.89	27.74
983	3.58	34.88	1,000	3.60	34.88	27.75
1,482	3.48	34.885				

Station 6946; 15 April; 45°35.5′ N., 48°10′ W.; depth 832 m.; dynamic height 970.993.

0	−0.92	33.33	0	−0.92	33.33	26.82
23	−0.79	33.33	25	−0.80	33.33	26.81
47	−0.71	33.35	50	−0.65	33.36	26.83
70	0.03	33.64	75	0.10	33.66	27.04
94	0.32	33.75	100	0.40	33.78	27.12
141	0.96	34.03	150	1.10	34.07	27.32
188	1.75	34.26	200	1.85	34.30	27.44
282	2.42	34.53	300	2.50	34.56	27.60
362	2.84	34.65	400	2.95	34.67	27.65
546	3.22	34.73	(600)	3.25	34.74	27.67

Station 6947; 15 April; 45°40.5′ N., 48°23′ W.; depth 174 m.; dynamic height 971.069.

0	−1.28	33.21	0	−1.28	33.21	26.73
26	−1.23	33.22	25	−1.20	33.22	26.74
52	−1.33	33.34	50	−1.30	33.33	26.83
78	−0.75	33.50	75	−0.80	33.48	26.93
105	−0.42	33.54	100	−0.45	33.53	26.96
156	−0.36	33.56	150	−0.35	33.56	26.98

Station 6948; 15 April; 45°44′ N., 48°29′ W.; depth 115 m.; dynamic height 971.076.

0	−1.23	33.20	0	−1.33	33.20	26.72
26	−1.23	33.20	25	−1.20	33.21	26.73
52	−1.17	33.31	50	−1.15	33.30	26.80
78	−1.16	33.32	75	−1.15	33.32	26.82
104	−1.15	33.33	100	−1.15	33.33	26.83

Observed values			Sclaed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t

Station 6949; 15 April; 45°50.5′ N., 48°35′ W.; depth 89 m.; dynamic height 971.085.

0	−1.14	33.12	0	−1.14	33.12	26.65
26	−1.16	33.12	25	−1.15	33.12	26.66
51	−1.15	33.12	50	−1.15	33.12	26.66
77	−1.09	33.22	75	−1.10	33.21	26.73

Station 6950; 15 April; 46°06′ N., 48°49′ W.; depth 69 m.; dynamic height 971.087.

0	−0.17	32.98	0	−0.17	32.98	26.51
26	−0.17	33.02	25	−0.15	33.02	26.54
52	−0.77	33.24	50	−0.75	33.22	26.72

Station 6951; 15 April; 46°16′ N., 48°58′ W.; depth 66 m.; dynamic height 971.104.

0	−0.11	32.67	0	−0.11	32.67	26.25
28	−0.13	32.67	25	−0.10	32.67	26.25
57	−0.86	33.06	50	−0.70	33.97	26.52

Station 6952; 15 April; 46°15′ N., 48°35′ W.; depth 88 m.; dynamic height 971.082.

0	−0.37	33.19	0	−0.37	33.19	26.68
25	−0.39	33.19	25	−0.39	33.19	26.69
51	−0.73	33.24	50	−0.75	33.24	26.74
76	−0.72	33.24	75	−0.70	33.24	26.74

Station 6953; 15 April; 46°13.5′ N., 47°58′ W.; depth 112 m.; dynamic height 971.083.

0	−1.22	33.10	0	−1.22	33.10	26.64
26	−1.21	33.10	25	−1.20	33.10	26.64
51	−1.34	33.14	50	−1.35	33.14	26.68
77	−0.99	33.30	75	−1.00	33.30	26.79
103	−0.88	33.32	100	−0.90	33.32	26.81

Station 6954; 15 April; 46°13′ N., 47°42′ W.; depth 172 m.; dynamic height 971.088.

0	−1.32	33.09	0	−1.32	33.09	26.63
22	−1.32	33.09	25	−1.30	33.09	26.63
43	−1.32	33.09	50	−1.30	33.09	26.63
65	−1.33	33.10	75	−1.35	33.14	26.68
87	−1.35	33.22	100	−1.15	33.30	26.80
130	−0.18	33.55	(150)	0.85	33.73	27.05

Station 6955; 15 April; 46°12′ N., 47°28′ W.; depth 677 m.; dynamic height 971.005.

0	−1.21	33.27	0	−1.21	33.27	26.78
27	−1.19	33.27	25	−1.15	33.27	26.78
54	−1.18	33.30	50	−1.15	33.28	26.78
81	−0.74	33.53	75	−0.95	33.47	26.94
108	0.81	33.82	100	0.35	33.74	27.09
162	1.57	34.20	150	1.45	34.13	27.33
216	2.17	34.36	200	2.00	34.32	27.45
324	2.62	34.55	300	2.50	34.51	27.56
508	3.76	34.82	400	3.10	34.67	27.64
618	3.79	34.83	600	3.80	34.83	27.69

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t

Station 6956; 15 April; 46°11′ N., 47°10′ W.; depth 1,518 m.; dynamic height 970.901.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.12	34.31	0	2.12	34.31	27.43
27	2.09	34.32	25	2.10	34.32	27.44
53	2.18	34.34	50	2.20	34.34	27.45
80	2.30	34.43	75	2.25	34.41	27.50
106	2.58	34.51	100	2.50	34.49	27.54
160	2.75	34.59	150	2.75	34.58	27.59
213	2.87	34.63	200	2.85	34.62	27.62
319	3.09	34.68	300	3.05	34.68	27.64
362	3.13	34.70	400	3.25	34.73	27.66
543	3.80	34.84	600	3.80	34.84	27.70
724	3.77	34.85	800	3.75	34.84	27.70
915	3.70	34.83	1,000	3.65	34.84	27.71
1,411	3.47	34.87				

Station 6957; 16 April; 46°10′ N., 46°33′ W.; depth 503 m.; dynamic height 970.901.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.61	34.09	0	2.61	34.09	27.21
28	2.61	34.09	25	2.65	34.09	27.21
54	2.28	34.23	50	2.55	34.20	27.31
82	3.21	34.43	75	3.05	34.40	27.42
109	3.42	34.54	100	3.40	34.49	27.46
164	2.51	34.54	150	2.70	34.53	27.55
218	2.95	34.65	200	2.75	34.61	27.62
327	3.86	34.81	300	3.75	34.78	27.65
413	3.88	34.86	400	3.90	34.86	27.71

Station 6958; 16 April; 46°06.5′ N., 45°59′ W.; depth 1,371 m.; dynamic height 970.918.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.16	34.24	0	3.16	34.24	27.28
26	3.14	34.24	25	3.15	34.24	27.28
51	3.13	34.25	50	3.15	34.25	27.29
77	3.15	34.26	75	3.15	34.26	27.30
103	3.27	34.30	100	3.25	34.29	27.31
153	4.09	34.58	150	4.10	34.57	27.46
204	3.83	34.65	200	3.85	34.64	27.53
307	4.13	34.83	300	4.10	34.82	27.66
442	3.89	34.85	400	3.95	34.85	27.69
663	3.70	34.84	600	3.75	34.85	27.71
887	3.59	34.88	800	3.65	34.87	27.74
1,104	3.47	----	(1,000)	3.55	34.88	27.75

Station 6959; 16 April; 46°06′ N., 45°18′ W.; depth 2,698 m.; dynamic height 970.907.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.93	34.41	0	3.93	34.46	27.38
26	3.66	34.47	25	3.65	34.47	27.42
52	3.60	34.48	50	3.60	34.48	27.43
78	3.57	34.49	75	3.60	34.49	27.44
103	3.56	34.48	100	3.55	34.48	27.43
154	3.72	34.60	150	3.70	34.59	27.51
206	3.58	34.62	200	3.60	34.62	27.55
309	3.80	34.76	300	3.80	34.75	27.63
391	3.74	34.78	400	3.75	34.78	27.65
586	3.87	34.855	600	3.85	34.86	27.71
781	3.71	34.875	800	3.70	34.87	27.74
979	3.58	34.875	1,000	3.60	34.88	27.75
1,480	3.49	34.90				

Station 6960; 16 April; 46°05′ N., 44°39′ W.; depth 3,658 m.; dynamic height 970.973.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.45	33.93	0	5.45	33.93	26.80
25	5.55	33.97	25	5.55	33.97	26.82
51	7.49	34.74	50	7.50	34.75	27.17
76	5.07	34.48	75	5.15	34.49	27.27
102	3.75	34.40	100	3.75	34.40	27.35
152	3.82	34.44	150	3.80	34.44	27.38
203	3.35	34.51	200	3.35	34.51	27.48
305	3.06	34.69	300	3.05	34.59	27.57
377	2.88	34.58	400	2.90	34.60	27.60
569	3.90	34.83	600	3.90	34.84	27.69
762	3.80	34.86	800	3.75	34.86	27.72
956	3.63	34.855	1,000	3.60	34.85	27.73
1,450	3.42	34.895				

Station 6961; 16 April; 46°23.5′ N., 44°43′ W.; depth 2,280 m.; dynamic height 970.885.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.56	34.45	0	3.56	34.45	27.41
26	3.49	34.49	25	3.50	34.49	27.45
53	3.30	34.50	50	3.35	34.50	27.47
79	2.99	34.51	75	3.05	34.51	27.51
106	2.81	34.51	100	2.80	34.51	27.53
158	2.88	34.59	150	2.85	34.57	27.58
211	3.30	34.67	200	3.20	34.66	27.62
317	3.26	34.72	300	3.25	34.71	27.65
411	3.59	34.77	400	3.60	34.76	27.66
616	3.73	34.86	600	3.75	34.86	27.72
796	3.63	34.85	800	3.60	34.85	27.73
1,030	3.43	34.865	1,000	3.45	34.87	27.76
1,555	3.43	34.88				

Station 6962; 17 April; 46°31′ N., 44°14′ W.; depth 896 m.; dynamic height 970.863.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.73	34.46	0	2.73	34.44	27.50
22	2.68	34.47	25	2.70	34.47	27.51
45	2.51	34.48	50	2.60	34.48	27.52
67	2.56	34.46	75	2.55	34.47	27.53
90	2.57	34.48	100	2.55	34.49	27.54
135	2.70	34.52	150	2.80	34.56	27.57
180	3.00	34.65	200	3.15	34.70	26.65
270	3.57	34.40	300	3.60	34.80	27.69
395	3.72	34.82	400	3.70	34.83	27.70
601	3.69	34.86	600	3.70	34.86	27.73

Station 6963; 17 April; 46°35.5′ N., 44°46′ W.; depth 229 m.; dynamic height 970.873.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.62	34.36	0	2.62	34.36	27.43
22	2.61	34.36	25	2.60	34.36	27.43
45	2.49	34.35	50	2.50	34.35	27.43
67	2.52	34.40	75	2.55	34.41	27.48
90	2.57	34.45	100	2.60	34.47	27.52
134	2.77	34.55	150	2.85	34.57	27.58
179	2.98	34.59	(200)	3.05	34.60	27.58

Station 6964; 17 April; 46°40′ N., 44°48′ W.; depth 165 m.; dynamic height 970.886.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.63	34.30	0	2.63	34.30	27.38
26	2.64	34.33	25	2.60	34.33	27.40
53	2.53	34.33	50	2.55	34.33	27.41
79	2.54	34.33	75	2.55	34.33	27.41
105	2.53	34.32	100	2.55	34.33	27.41
157	2.62	34.42	150	2.60	34.41	27.47

Station 6965; 17 April; 46°48′ N., 44°51′ W.; depth 137 m.; dynamie height 970.890.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.68	34.31	0	2.68	34.31	27.38
26	2.66	34.31	25	2.70	34.31	27.38
52	2.57	34.30	50	2.60	34.30	27.38
79	2.56	34.30	75	2.55	34.30	27.39
105	2.57	34.32	100	2.55	34.31	27.40
131	2.45	34.40				

Station 6966; 17 April; 46°48′ N., 45°04′ W.; depth 172 m.; dynamic height 970.889.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.60	34.32	0	2.60	34.32	27.40
25	2.62	34.30	25	2.62	31.30	27.38
50	2.56	34.30	50	2.56	34.30	27.39
74	2.50	34.31	75	2.50	34.31	27.10
99	2.49	34.32	100	2.50	34.32	27.11
148	2.50	31.42	150	2.50	34.42	27.49

Station 6967; 17 April; 46°45.5′ N., 45°19′ W.; depth 220 m.; dynamic height 970.889.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.61	34.31	0	2.61	34.31	27.39
24	2.62	34.29	25	2.65	34.29	27.37
18	2.61	34.29	50	2.60	34.29	27.37
72	2.57	34.31	75	2.55	34.31	27.40
96	2.54	34.32	100	2.55	34.33	27.41
143	3.15	34.51	150	3.20	34.52	27.51
191	3.37	34.60	200	3.40	34.61	27.56

Station 6968; 17 April; 46°46′ N., 45°42′ W.; depth 262 m.; dynamie height 970.900.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.71	34.27	0	2.71	34.27	27.35
26	2.71	34.29	25	2.70	34.29	27.36
51	2.71	34.28	50	2.70	34.28	27.35
77	2.70	34.27	75	2.70	34.27	27.35
102	2.69	34.28	100	2.70	34.28	27.35
153	2.85	34.41	150	2.80	34.40	27.37
204	3.86	34.69	200	3.80	34.67	27.57
248	3.77	34.74				

Station 6969; 17 April; 46°46′ N., 46°12′ W.; depth 320 m.; dynamic height 970.899.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.74	34.26	0	2.74	34.26	27.31
26	2.72	-----	25	2.75	34.26	27.34
52	2.70	34.27	50	2.70	34.27	27.35
78	2.68	34.27	75	2.70	34.27	27.35
104	2.60	34.29	100	2.60	34.28	27.36
155	2.62	34.39	150	2.60	34.37	27.44
207	3.66	34.65	200	3.60	34.61	27.54
311	3.74	34.83	300	3.75	34.81	27.68

Station 6970; 17 April; 46°44.5′ N., 46°30′ W.; depth 686 m.; dynamic height 970.879.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.32	31.28	0	2.32	34.28	27.39
26	2.33	34.26	25	2.35	34.26	27.37
52	2.33	34.28	50	2.35	31.28	27.38
78	2.53	34.44	75	2.75	34.42	27.47
104	2.83	34.61	100	3.40	31.59	27.54
155	1.05	34.74	150	4.05	31.72	27.58
208	3.95	34.79	200	3.95	34.78	27.63
312	4.20	34.84	300	4.20	34.83	27.65
376	4.06	34.87	400	4.00	34.87	27.71
572	3.64	34.84	(600)	3.60	34.85	27.73

Station 6971; 17 April; 46°43′ N., 46°44′ W.; depth 1,244 m.; dynamic height 970.886.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.41	34.31	0	2.41	34.31	27.41
26	2.42	34.31	25	2.45	34.31	27.40
52	2.41	34.31	50	2.45	34.31	27.40
78	2.28	34.41	75	2.30	34.40	27.49
104	2.46	34.52	100	2.45	34.51	27.56
157	2.44	34.56	150	2.45	34.56	27.60
209	2.56	34.61	200	2.55	34.60	27.63
313	2.94	-----	300	2.90	34.66	27.65
424	3.60	34.78	400	3.50	34.76	27.67
636	3.71	34.85	600	3.70	34.84	27.71
850	3.61	-----	800	3.65	34.86	27.73
1,064	3.51	34.875	1,000	3.55	34.87	27.75

Station 6972; 18 April; 46°45′ N., 47°05′ W.; depth 631 m.; dynamic height 970.993.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−1.17	33.16	0	−1.17	33.16	26.69
27	−1.19	33.19	25	−1.15	33.18	26.70
53	−0.78	33.40	50	−0.90	33.38	26.86
80	0.65	33.74	75	0.40	33.68	27.01
106	1.32	34.01	100	1.25	33.97	27.22
160	1.60	34.14	150	1.55	34.11	27.31
212	2.18	34.33	200	2.05	34.28	27.11
318	2.90	34.61	300	2.85	34.58	27.58
410	2.86	34.66	400	2.85	34.65	27.61
607	3.66	34.81	600	3.65	34.81	27.69

Station 6973; 18 April; 46°45.5′ N., 47°10′ W.; depth 327 m.; dynamie height 971.058.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.30	33.14	0	−0.30	33.14	26.67
25	−1.30	33.15	25	−1.31	33.15	26.68
50	−1.33	33.16	50	−1.33	33.16	26.69
75	−1.17	33.31	75	−1.17	33.31	26.81
101	−0.69	33.41	100	−0.75	33.41	26.88
151	1.58	33.96	150	1.60	33.95	27.18
201	1.49	34.04	200	1.50	34.04	27.26
302	2.02	34.28	300	2.00	34.28	27.11

Station 6974; 18 April; 46°45.5′ N., 47°33′ W.; depth 172 m.; dynamie height 971.077.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−1.27	33.08	0	−1.27	33.08	26.62
24	−1.29	33.08	25	−1.30	33.08	26.62
47	−1.29	33.08	50	−1.30	33.08	26.62
70	−1.27	33.22	75	−1.25	33.24	26.75
94	−0.81	33.31	100	−0.60	33.36	26.82
141	0.86	33.72	(150)	1.15	33.80	27.09

Station 6975; 18 April; 46°46′ N., 48°05′ W.; depth 119 m.; dynamic height 971.085.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−1.19	33.09	0	−1.19	33.09	26.63
26	−1.20	33.10	25	−1.20	33.10	26.64
51	−1.19	33.08	50	−1.15	33.08	26.62
77	−1.12	33.13	75	−1.15	33.13	26.66
103	−0.89	33.30	100	−0.90	33.27	26.77

Station 6976; 18 April; 46°46′ N., 48°37′ W.; depth 97 m.; dynamic height 971.081.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.58	33.17	0	−0.58	33.17	26.67
28	−0.59	33.135	25	−0.60	33.14	26.65
55	−0.60	33.17	50	−0.60	33.16	26.66
83	−0.59	33.21	75	−0.60	33.20	26.70

Station 6977; 30 April; 41.59.5′ N., 50°58′ W.; depth 3,392 m.; dynamic height 970.949.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.81	33.33	0	2.81	33.33	26.59
25	2.81	33.32	25	2.81	33.32	26.58
49	1.61	33.71	50	1.61	33.73	27.80
71	3.04	34.18	75	3.05	34.18	27.24
98	2.98	34.21	100	3.00	34.21	27.28
147	3.73	34.52	150	3.70	34.52	27.46
196	3.49	34.52	200	3.50	34.52	27.48
294	5.53	34.98	300	5.50	34.99	27.62
357	4.97	34.95	400	4.70	34.95	27.69
539	4.36	34.94	600	4.35	34.96	27.74
724	4.38	34.99	800	4.10	34.97	27.78
910	3.79	34.93	1,000	3.75	34.94	27.78
1,384	3.66	34.94				

Station 6978; 1 May; 41°59′ N., 51°59′ W.; depth 3,932 m.; dynamic height 971.054.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.72	33.12	0	3.72	33.12	26.33
24	3.70	33.13	25	3.70	33.13	26.35
48	2.36	33.17	50	2.45	33.18	26.50
72	9.17	34.52	75	9.55	34.73	26.83
97	11.15	35.17	100	11.15	35.16	26.89
144	4.55	34.26	150	4.55	34.27	27.17
192	4.55	34.46	200	4.50	34.48	27.34
289	4.62	34.69	300	4.65	34.72	27.52
396	5.35	34.94	400	5.35	34.95	27.61
595	4.48	34.95	600	4.45	34.95	27.72
795	3.87	34.89	800	3.90	34.89	27.73
994	3.90	34.935	1,000	3.90	34.93	27.76
1,192	3.57	34.92				

Station 6979; 1 May; 42°21.5′ N., 51°33′ W.; depth 3,109 m.; dynamic height 970.954.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.81	33.40	0	2.81	33.40	26.65
25	2.37	33.48	25	2.37	33.48	26.75
50	1.34	33.70	50	1.34	33.70	27.00
75	1.66	33.87	75	1.66	33.87	27.11
99	2.25	34.11	100	2.30	34.14	27.28
149	5.47	34.68	150	5.45	34.68	27.38
199	4.88	34.71	200	4.85	34.74	27.51
298	3.66	34.71	300	3.65	34.74	27.63
393	4.00	34.84	400	4.00	34.85	27.69
592	3.94	34.88	600	3.95	34.89	27.72
793	3.72	34.895	800	3.70	34.89	27.75
991	3.56	34.895	1,000	3.55	34.90	27.77
1,184	3.52	34.92				

Station 6980; 1 May; 42°41′ N., 51°06′ W.; depth 1,810 m.; dynamic height 971.012.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.45	33.14	0	−0.45	33.14	26.65
24	−0.60	33.16	25	−0.60	33.17	26.67
50	−0.58	33.48	50	−0.55	33.48	26.92
74	0.65	33.79	75	0.65	33.79	27.11
100	0.78	33.85	100	0.80	33.85	27.15
149	1.03	33.94	150	1.05	33.94	27.21
198	1.62	34.14	200	1.65	34.15	27.34
298	2.73	34.54	300	2.75	34.51	27.54
337	3.05	34.56	400	3.15	34.63	27.59
509	3.29	34.71	600	3.60	34.80	27.69
683	3.93	34.87	800	3.90	34.89	27.73
867	3.88	34.895	1,000	3.80	34.90	27.75
1,351	3.56	34.90				

Station 6981; 1 May; 42°52′ N., 50°53′ W.; depth 1,090 m.; dynamic height 971.098.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.46	33.08	0	1.46	33.08	26.49
25	0.67	33.16	25	0.67	33.16	26.61
50	0.26	33.23	50	0.26	33.23	26.69
75	−0.07	33.28	75	−0.07	33.28	26.74
100	−0.43	33.33	100	−0.43	33.33	26.80
150	−0.28	33.50	150	−0.28	33.50	26.93
200	0.45	33.78	200	0.45	33.78	27.11
300	1.81	34.25	300	1.81	34.25	27.41
404	2.59	34.50	400	2.55	34.49	27.54
607	3.67	34.77	600	3.65	34.76	27.65
811	3.88	34.88	800	3.90	34.87	27.72
1,010	3.67	34.885	1,000	3.70	34.88	27.74

Station 6982; 1 May; 42°56′ N., 50°53′ W.; depth 635 m.; dynamic height 971.139.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.02	32.67	0	2.02	32.67	26.13
23	1.28	32.90	25	1.25	32.92	26.38
48	0.66	33.12	50	0.60	33.12	26.58
71	0.01	33.21	75	−0.10	33.22	26.69
96	−0.52	33.29	100	−0.55	33.30	26.77
143	−0.70	33.38	150	−0.65	33.40	26.87
190	−0.11	33.58	200	0.00	33.62	27.02
286	1.20	34.00	300	1.40	34.06	27.28
394	2.49	34.42	400	2.55	34.43	27.49
596	3.68	34.78	600	3.70	34.78	27.66

Station 6983; 1 May; 42°58.5′ N., 50°50′ W.; depth 174 m.; dynamic height 971.117.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.54	32.52	0	2.54	32.52	25.97
25	1.47	32.76	25	1.47	32.76	26.24
52	−0.46	33.24	50	−0.40	33.22	26.71
78	−0.63	33.32	75	−0.60	33.31	26.78
104	−0.62	33.44	100	−0.60	33.43	26.88
155	−0.40	33.52	150	−0.45	33.51	26.95

Station 6984; 1 May; 42°08′ N., 50°35′ W.; depth 90 m.; dynamic height 971.133.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.41	32.67	0	2.41	32.67	26.10
26	1.99	32.68	25	2.00	32.68	26.14
51	1.73	32.70	50	1.75	32.70	26.17
77	−0.50	33.28	75	−0.40	33.26	26.74

Station 6985; 1 May; 43°21′ N., 50°15′ W.; depth 64 m.; dynamic height 971.115.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.59	32.87	0	1.59	32.87	26.32
25	1.15	32.94	25	1.15	32.94	26.41
50	0.44	33.08	50	0.44	33.08	26.56

Station 6986; 1 May; 42°56.5′ N., 50°15′ W.; depth 99 m.; dynamic height 971.094.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.43	33.24	0	0.43	33.24	26.69
25	0.15	33.28	25	0.15	33.28	26.73
50	−0.46	33.32	50	−0.45	33.32	26.79
75	−0.30	33.34	75	−0.30	33.34	26.80

Station 6987; 2 May; 42°47′ N., 50°16′ W.; depth 293 m.; dynamic height 971.077.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.34	33.13	0	−0.34	33.13	26.63
22	−0.56	33.14	25	−0.55	33.14	26.65
44	−0.64	33.14	50	−0.70	33.15	26.66
66	−0.94	33.22	75	−0.95	33.29	26.78
88	−0.94	33.38	100	−0.80	33.44	26.90
132	−0.27	33.53	150	−0.15	33.57	26.99
176	−0.02	33.62	200	0.20	33.68	27.05
264	0.81	33.88				

Station 6988; 2 May; 42°35.5′ N., 50°16′ W.; depth 1,719 m.; dynamic height 970.934.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.57	33.56	0	1.57	33.56	26.87
25	1.49	33.62	25	1.49	33.62	26.93
50	1.25	33.78	50	1.25	33.78	27.06
75	1.31	33.96	75	1.31	33.96	27.21
100	1.70	34.12	100	1.70	34.12	27.31
150	2.23	34.33	150	2.23	34.33	27.44
200	2.67	34.54	200	2.67	34.54	27.57
300	3.46	34.74	300	3.46	34.74	27.65
392	3.62	34.79	400	3.65	34.79	27.67
592	3.82	34.86	600	3.80	34.86	27.72
793	3.61	34.875	800	3.60	34.87	27.75
991	3.66	34.88	1,000	3.65	34.88	27.75

Station 6989; 2 May; 42°22′ N., 50°18′ W.; depth 2,671 m.; dynamic height 970.954.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.47	33.36	0	1.47	33.36	26.72
25	2.00	33.56	25	2.00	33.56	26.85
51	2.47	33.96	50	2.50	33.94	27.10
76	2.00	33.98	75	2.00	33.97	27.17
102	3.05	34.20	100	2.90	34.18	27.26
152	5.11	34.64	150	5.00	34.62	27.40
203	5.54	34.80	200	5.55	34.80	27.47
305	4.78	34.85	300	4.80	34.85	27.60
401	4.38	34.85	400	4.40	34.88	27.66
600	3.90	34.89	600	3.90	34.89	27.73
798	3.82	34.915	800	3.80	34.91	27.76
997	4.02	34.96	1,000	4.00	34.96	27.78
1,489	3.47	34.915				

Station 6990; 2 May; 42°00′ N., 50°17′ W.; depth 3,612 m.; dynamic height 971.033.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.29	33.20	0	4.29	33.20	26.35
24	3.88	33.31	25	3.85	33.32	26.48
49	4.44	33.76	50	4.45	33.78	26.79
73	5.32	34.16	75	5.25	34.15	26.99
98	3.00	33.91	100	3.05	33.92	27.04
147	5.35	34.47	150	5.30	34.45	27.22
196	1.59	34.08	200	1.60	34.08	27.28
291	2.95	34.44	300	3.10	34.48	27.48
397	3.92	34.64	400	4.75	34.92	27.66
471	5.10	34.97	600	4.55	34.94	27.70
622	4.44	34.94	800	4.00	34.91	27.74
789	4.00	34.91	1,000	3.85	34.91	27.75
1,224	3.72	34.92				

Station 6991; 2 May; 41°31.5′ N., 50°14′ W.; depth 3,811 m.; dynamic height 971.263.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.97	34.79	0	10.97	34.79	26.61
26	10.85	34.88	25	10.85	34.87	26.72
52	11.21	35.02	50	11.15	35.01	26.78
78	11.69	35.17	75	11.65	35.16	26.80
104	11.67	35.18	100	11.65	35.17	26.81
155	11.87	35.26	150	11.80	35.25	26.84
206	12.20	35.38	200	12.15	35.37	26.87
310	12.21	35.48	300	12.20	35.48	26.94
420	9.35	35.18	400	9.85	35.23	27.17
630	5.45	34.93	600	5.80	34.95	27.56
840	3.96	34.86	800	4.05	34.86	27.69
1,050	4.24	34.955	1,000	4.20	34.93	27.73
1,578	3.79	34.95				

Station 6992; 2 May; 41°04.5′ N., 50°12′ W.; depth 3,658 m.; dynamic height 971.328.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.86	35.90	0	14.86	35.90	26.71
25	14.61	35.87	25	14.61	35.87	26.75
51	14.44	35.85	50	14.45	35.85	26.76
76	14.33	35.83	75	14.35	35.83	26.77
102	14.27	35.82	100	14.25	35.82	26.78
152	14.20	35.80	150	14.20	35.80	26.78
202	13.54	35.64	200	13.55	35.64	26.79
304	13.22	35.69	300	13.25	35.69	26.89
413	10.91	35.38	400	11.20	35.42	27.09
609	6.35	34.91	600	6.60	34.91	27.42
796	4.54	34.89	800	4.55	34.89	27.66
1,004	4.33	34.95	1,000	4.35	34.95	27.73
1,542	3.80	34.945				

Station 6993; 3 May; 41°59′ N., 49°25′ W.; depth 3,292 m.; dynamic height 970.990.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.55	33.29	0	3.55	33.29	26.48
24	2.96	33.36	25	2.85	33.36	26.61
49	0.31	33.46	50	0.30	33.46	26.87
73	0.59	33.62	75	0.60	33.63	26.98
97	0.71	33.80	100	0.75	33.83	27.14
145	2.46	34.19	150	2.90	34.25	27.32
194	6.01	34.84	200	5.90	34.84	27.46
291	2.61	34.52	300	2.65	34.52	27.56
386	3.70	34.73	400	3.80	34.75	27.63
577	4.14	34.90	600	4.15	34.91	27.72
766	4.03	34.94	800	4.00	34.94	27.76
958	3.82	34.925	1,000	3.80	34.92	27.77
1,436	3.50	34.91				

Station 6994; 3 May; 41°30′ N., 48°60′ W., depth 3,292 m.; dynamic height 971.051.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.52	33.03	0	2.52	33.03	26.39
24	2.98	33.38	25	2.95	33.38	26.61
50	−0.10	33.38	50	−0.10	33.38	26.82
75	−0.25	33.48	75	−0.25	33.48	26.91
99	−0.07	33.58	100	−0.05	33.58	26.98
148	0.60	33.82	150	0.70	33.84	27.15
198	3.11	34.25	200	3.15	34.28	27.31
297	4.18	34.61	300	4.15	34.61	27.48
368	3.07	34.53	400	3.35	34.59	27.54
553	4.80	34.96	600	1.60	34.93	27.68
738	3.92	34.89	800	3.80	34.89	27.74
929	3.70	34.89	1,000	3.65	34.89	27.75
1,417	3.56	34.91				

Station 6995; 3 May; 41°06′ N., 48°14′ W.; depth 3,567 m.; dynamic height 971.166.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.13	35.27	0	12.13	35.27	26.79
25	11.93	35.29	25	11.93	35.29	26.85
50	11.92	35.29	50	11.92	35.29	26.85
75	11.95	35.30	75	11.95	35.30	26.85
100	12.20	35.39	100	12.20	35.39	26.87
150	11.93	35.32	150	11.93	35.32	26.87
200	9.86	34.88	200	9.86	34.88	26.90
300	7.43	34.79	300	7.43	34.79	27.21
360	4.98	34.54	400	5.00	34.59	27.37
549	5.10	34.87	600	5.00	34.91	27.63
745	4.65	34.965	800	4.50	34.96	27.72
937	4.17	34.94	1,000	4.10	34.94	27.75
1,431	3.85	34.955				

Station 6996; 3 May; 41°00′ N., 47°37′ W.; depth 3,383 m.; dynamic height 971.149.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.59	33.28	0	3.59	33.28	26.48
24	10.61	34.95	25	10.60	34.95	26.82
49	10.51	35.00	50	10.45	35.00	26.89
73	9.54	34.81	75	9.50	34.80	26.90
98	9.09	34.72	100	9.05	34.71	26.90
147	7.19	34.39	150	7.00	34.37	26.95
196	5.06	34.20	200	5.10	34.20	27.05
294	8.88	35.11	300	8.85	35.11	27.25
351	8.43	35.11	400	7.40	35.03	27.40
547	4.68	34.80	600	4.50	34.82	27.61
760	4.34	34.90	800	4.15	34.90	27.71
950	3.81	34.885	1,000	3.80	34.89	27.74
1,424	3.71	34.94				

Station 6997; 3 May; 41°35.5′ N., 47°17′ W.; depth 4,390 m.; dynamic height 971.090.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.26	33.42	0	6.26	33.42	26.29
25	5.80	33.46	25	5.80	33.46	26.38
51	7.31	34.14	50	7.20	34.11	26.71
77	10.60	35.12	75	10.60	35.11	26.95
103	8.19	34.67	100	8.50	34.72	27.00
153	6.98	34.58	150	7.00	34.59	27.11
205	7.77	34.84	200	7.75	34.83	27.19
308	3.99	34.50	300	4.10	34.51	27.41
426	4.30	34.72	400	4.25	34.67	27.52
637	4.55	34.92	600	4.55	34.90	27.67
849	4.29	34.95	800	4.35	34.95	27.73
1,059	3.99	34.93	1,000	4.05	34.94	27.75
1,579	3.53	34.91				

Station 6998; 4 May; 41°58.5 N., 47°56′ W.; depth 3,932 m.; dynamic height 971.015.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.25	33.34	0	6.25	33.34	26.23
25	5.72	33.46	25	5.72	33.36	26.31
49	5.60	33.59	50	5.60	33.60	26.52
74	6.57	34.00	75	6.55	34.02	26.73
98	4.30	34.15	100	4.30	34.18	27.12
147	6.18	34.70	150	6.15	34.70	27.32
196	4.67	34.60	200	4.70	34.60	27.41
294	5.10	34.86	300	5.15	34.87	27.58
383	5.40	34.99	400	5.40	35.00	27.65
575	5.08	35.06	600	4.95	35.05	27.74
768	4.23	34.97	800	4.20	34.97	27.77
958	4.04	34.97	1,000	4.00	34.97	27.79
1,431	3.56	34.93				

Station 6999; 4 May; 42°23′ N., 48°33′ W.; depth 3,410 m.; dynamic height 971.005.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.07	34.40	0	9.07	34.40	26.66
25	9.35	34.57	25	9.35	34.57	26.75
51	10.18	34.80	50	10.15	34.80	26.79
76	3.83	33.87	75	4.00	33.93	26.95
102	1.69	33.75	100	1.70	33.75	27.01
152	2.92	34.09	150	2.90	34.08	27.18
202	2.37	34.32	200	2.40	34.31	27.41
304	3.85	34.68	300	3.75	34.66	27.56
408	4.56	34.86	400	4.50	34.85	27.63
609	4.68	35.00	600	4.70	35.00	27.73
809	4.52	35.01	800	4.55	35.01	27.76
1,010	4.07	34.97	1,000	4.10	34.97	27.78
1,514	3.46	34.93				

Station 7000; 4 May; 42°42′ N., 49°10′ W.; depth, 2,652 m.; dynamic height 971.003.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.15	33.92	0	7.15	33.92	26.57
25	10.57	34.98	25	10.57	34.98	26.85
52	10.15	34.96	50	10.15	34.96	26.91
77	11.15	35.34	75	11.10	35.34	27.04
103	10.10	35.26	100	10.25	35.27	27.14
154	8.49	35.04	150	8.60	35.06	27.25
206	6.27	34.80	200	6.35	34.81	27.38
309	6.21	35.03	300	6.25	35.01	27.55
341	6.03	35.05	400	5.50	35.00	27.63
517	4.09	34.89	600	4.30	34.93	27.71
697	4.46	35.00	800	4.15	34.96	27.76
884	3.93	34.92	1,000	3.85	34.92	27.76
1,378	3.53	34.92				

Station 7001; 4 May 43°19.5′ N., 48°49′ W.; depth 2,103 m.; dynamic height 970.904.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.14	33.72	0	3.14	33.72	26.87
25	1.79	33.78	25	1.79	33.78	27.03
50	1.82	33.90	50	1.82	33.90	27.12
75	2.55	34.29	75	2.55	34.29	27.38
100	2.74	34.41	100	2.74	34.41	27.46
150	2.68	34.52	150	2.68	34.52	27.55
199	2.81	34.58	200	2.80	34.58	27.58
299	3.98	34.81	300	4.00	34.81	27.66
384	4.05	34.88	400	4.05	34.88	27.70
583	3.94	34.90	600	3.90	34.90	27.74
786	3.66	34.90	800	3.65	34.90	27.76
981	3.51	34.90	1,000	3.50	34.90	27.78
1,484	3.40	34.90				

Station 7002; 4 May; 43°07′ N., 48°10′ W.; depth 3,383 m.; dynamic height 971.049.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.05	33.44	0	6.05	33.44	26.33
25	9.11	34.26	25	9.11	34.26	26.54
50	7.23	34.35	50	7.23	34.35	26.90
75	9.33	34.92	75	9.33	34.92	27.02
100	10.53	35.24	100	10.53	35.24	27.07
150	9.60	35.17	150	9.60	35.17	27.17
199	8.29	35.03	200	8.30	35.03	27.27
299	5.85	34.83	300	5.85	34.83	27.45
388	5.80	34.99	400	5.70	34.99	27.60
584	4.37	34.90	600	4.35	34.90	27.69
782	4.38	34.97	800	4.35	34.97	27.75
976	3.74	34.90	1,000	3.75	34.90	27.75
1,460	3.46	34.89				

Station 7003; 4 May; 42°53′ N., 47°30′ W.; depth 3,749 m.; dynamic height 971.152.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.23	33.28	0	6.23	33.38	26.26
25	5.70	33.77	25	5.70	33.77	26.64
50	9.88	34.80	50	9.88	34.80	26.84
75	11.17	35.12	75	11.17	35.12	26.86
99	12.23	35.40	100	12.23	35.40	26.87
150	10.63	35.16	150	10.63	35.16	26.98
200	7.14	34.56	200	7.14	34.56	27.07
299	8.46	35.04	300	8.45	35.04	27.25
386	7.34	35.05	400	7.25	35.05	27.44
580	5.00	34.91	600	4.90	34.91	27.64
774	4.47	34.93	800	4.45	34.93	27.70
968	4.31	34.94	1,000	4.25	34.94	27.73
1,458	3.66	34.93				

Station 7004; 5 May; 42°39.5′ N., 46°51′ W.; depth 4,051 m.; dynamie height 971.355.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.27	35.74	0	14.27	35.74	26.72
23	14.27	35.74	25	14.25	35.74	26.72
45	14.72	35.92	50	14.70	35.92	26.77
68	14.69	35.92	75	14.50	35.90	26.79
90	14.15	35.79	100	13.95	35.74	26.78
136	13.53	35.62	150	13.40	35.60	26.79
182	13.20	35.56	200	13.05	35.53	26.81
272	12.35	35.38	300	12.20	35.36	26.85
361	12.00	35.52	400	11.25	35.27	26.96
546	8.15	35.08	600	7.35	35.05	27.43
735	5.82	35.00	800	5.35	34.99	27.64
923	4.71	34.98	1,000	4.55	34.98	27.73
1,400	4.09	34.975				

Station 7005; 5 May; 42°24.5′ N., 46°12′ W.; depth 4,663 m.; dynamic height 971.486.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.60	35.99	0	15.60	35.99	26.61
25	15.58	35.99	25	15.58	35.99	26.62
51	15.50	35.99	50	15.50	35.99	26.64
76	15.19	35.96	75	15.20	35.97	26.70
101	14.98	35.94	100	15.00	35.94	26.71
151	14.92	35.94	150	14.90	35.94	26.74
202	14.12	35.76	200	14.10	35.77	26.78
303	14.68	35.98	300	14.65	35.97	26.82
413	13.57	35.79	400	13.80	35.82	26.88
617	9.73	35.23	600	10.05	35.26	27.16
820	7.12	35.14	800	7.30	35.14	27.50
1,024	5.36	35.05	1,000	5.50	35.06	27.68
1,532	4.03	34.97				

Station 7006; 5 May; 42°52′ N., 45°43′ W.; depth 4,755 m.; dynamic height 971.523.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	16.42	36.20	0	16.42	36.20	26.59
23	15.43	36.04	25	15.35	36.04	26.71
45	15.17	36.05	50	15.05	36.04	26.78
68	14.71	35.93	75	14.55	35.90	26.78
90	14.45	35.88	100	14.50	35.90	26.79
135	14.91	36.03	150	14.90	36.03	26.81
180	14.82	36.02	200	14.70	36.00	26.83
270	14.38	35.93	300	14.25	35.91	26.85
394	13.92	35.87	400	13.90	35.86	26.89
591	12.22	35.59	600	12.05	35.56	27.03
788	8.24	35.13	800	8.05	35.13	27.38
984	6.32	35.14	1,000	6.20	35.14	27.66
1,473	4.13	34.97				

Station 7007; 5 May; 43°11′ N., 45°23′ W.; depth 4,663 m.; dynamie height 971.492.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.15	35.99	0	15.15	35.99	26.72
24	15.04	35.98	25	15.05	35.98	26.73
48	14.71	35.94	50	14.65	35.94	26.79
72	14.45	35.88	75	14.45	35.88	26.79
97	14.52	35.90	100	14.55	35.91	26.79
145	14.66	35.96	150	14.65	35.96	26.81
193	14.68	35.97	200	14.65	35.97	26.82
290	14.56	35.95	300	14.55	35.95	26.82
383	14.46	35.96	400	14.35	35.94	26.86
576	11.32	35.46	600	10.90	35.39	27.11
772	7.71	35.07	800	7.20	35.05	27.45
968	5.36	34.98	1,000	5.05	34.98	27.67
1,466	4.05	34.95				

Station 7008; 5 May; 43°24.5′ N., 46°01′ W.; depth 4,663 m.; dynamic height 971.469.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.63	36.02	0	15.63	36.02	26.63
26	15.58	36.03	25	15.55	36.03	26.66
51	15.16	35.96	50	15.15	35.96	26.70
77	14.91	35.92	75	14.90	35.92	26.72
102	15.07	35.97	100	15.05	35.97	26.73
152	14.65	35.88	150	14.65	35.88	26.74
204	14.73	35.91	200	14.70	35.91	26.76
306	14.15	35.81	300	14.20	35.82	26.79
424	12.71	35.63	400	13.05	35.67	26.92
634	9.50	35.24	600	10.10	35.30	27.19
844	5.64	34.905	800	6.20	34.96	27.52
1,054	5.06	35.01	1,000	5.20	34.99	27.66
1,579	3.97	34.955				

Station 7009; 5 May; 43°33.5′ N., 46°41′ W.; depth 4,463 m.; dynamic height 971.385.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	14.89	35.75	0	14.89	35.75	26.59
24	15.44	36.02	25	15.45	36.02	26.68
49	15.21	36.00	50	15.20	36.00	26.72
73	15.20	36.01	75	15.20	36.01	26.73
98	15.19	36.01	100	15.20	36.01	26.73
147	15.09	36.00	150	15.10	36.00	26.74
196	15.24	36.02	200	15.20	36.01	26.73
294	14.18	35.90	300	14.10	35.89	26.87
388	12.87	35.66	400	12.60	35.62	26.97
584	8.34	35.10	600	8.00	35.07	27.35
780	5.35	34.94	800	5.25	34.94	27.62
978	4.71	34.96	1,000	4.70	34.96	27.70
1,478	3.91	34.945				

STATIONS OCCUPIED IN 1959—Continued

Station 7010; 6 May; 43°13′ N., 47°19′ W.; depth 4,024 m.; dynamic height 971.220.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.22	34.44	0	10.22	34.44	26.50
25	14.43	35.75	25	14.43	35.75	26.70
51	14.76	35.88	50	14.75	35.88	26.72
76	14.31	35.81	75	14.35	35.81	26.76
102	13.99	35.76	100	14.05	35.77	26.79
152	13.06	35.53	150	13.05	35.53	26.81
202	13.22	35.62	200	13.20	35.62	26.85
304	10.72	35.31	300	10.85	35.32	27.07
406	8.28	35.10	400	8.45	35.11	27.31
610	5.20	34.94	600	5.25	34.94	27.62
816	4.52	34.965	800	4.55	34.96	27.72
1,017	4.35	34.99	1,000	4.40	34.99	27.75
1,516	3.74	34.95				

Station 7011; 6 May; 43°53′ N., 47°58′ W.; depth 3,658 m.; dynamic height 970.943.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.60	33.72	0	4.60	33.72	26.73
25	4.06	33.85	25	4.06	33.85	26.88
51	3.67	34.06	50	3.70	34.05	27.08
76	3.29	34.13	75	3.30	34.13	27.18
102	2.98	34.23	100	3.00	34.21	27.28
152	3.82	34.48	150	3.80	34.47	27.41
202	3.96	34.61	200	3.95	34.61	27.50
304	4.41	34.84	300	4.40	34.83	27.62
400	4.01	34.86	400	4.00	34.86	27.70
600	3.93	34.89	600	3.95	34.89	27.72
802	3.81	34.91	800	3.80	34.91	27.76
1,002	3.72	34.92	1,000	3.70	34.92	27.78
1,501	3.42	34.91				

Station 7012; 6 May; 44°02.5′ N., 48°30′ W.; depth 4,017 m.; dynamic height 970.931.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.71	33.43	0	0.71	33.43	26.82
25	0.14	33.52	25	0.14	33.52	26.93
50	0.26	33.60	50	0.26	33.60	26.99
75	1.09	33.98	75	1.09	33.98	27.24
101	1.54	34.16	100	1.50	34.15	27.35
151	2.72	34.44	150	2.70	34.44	27.48
201	3.64	34.64	200	3.65	34.64	27.55
302	4.28	34.84	300	4.20	34.84	27.65
393	4.04	34.86	400	4.05	34.86	27.69
592	3.82	34.88	600	3.80	34.88	27.73
795	3.89	34.915	800	3.90	34.91	27.75
995	3.67	34.90	1,000	3.65	34.90	27.76
1,499	3.42	34.92				

Station 7013; 6 May; 44°07′ N., 48°47′ W.; depth 1,628 m.; dynamic height 970.936.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.19	33.50	0	1.19	33.50	26.85
25	1.58	33.69	25	1.58	33.69	26.97
50	1.38	33.88	50	1.38	33.88	27.14
75	1.21	33.96	75	1.21	33.96	27.22
100	1.38	34.06	100	1.38	34.06	27.29
150	2.05	34.33	150	2.05	34.33	27.45
201	2.58	34.55	200	2.60	34.55	27.58
301	2.80	34.62	300	2.80	34.62	27.62
392	3.22	34.73	400	3.25	34.73	27.66
587	3.77	34.86	600	3.75	34.86	27.72
781	3.67	34.87	800	3.63	34.87	27.74
978	3.59	34.885	1,000	3.60	34.88	27.75
1,478	3.49	34.905				

Station 7014; 6 May; 44°09′ N., 48°57′ W.; depth 715 m.; dynamic height 970.990.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.01	33.24	0	0.01	33.24	26.71
25	0.22	33.42	25	0.22	33.42	26.85
49	0.56	33.56	50	0.55	33.56	26.94
74	0.43	33.69	75	0.45	33.69	27.04
99	0.69	33.78	100	0.70	33.78	27.10
148	1.17	33.93	150	1.20	33.94	27.20
197	1.66	34.22	200	1.70	34.24	27.40
296	2.80	34.60	300	2.80	34.61	27.61
387	3.21	34.71	400	3.25	34.72	27.66
590	3.59	34.80	600	3.60	34.80	27.69

Station 7015; 6 May; 44°10′ N., 49°04′ W.; depth 169 m.; dynamic height 971.051.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.18	33.30	0	0.18	33.30	26.74
25	−0.35	33.38	25	−0.35	33.38	26.83
50	−0.40	33.41	50	−0.40	33.41	26.87
75	−0.41	33.43	75	−0.41	33.43	26.88
101	−0.38	-----	100	−0.35	33.45	26.89
151	−0.20	33.51	150	−0.20	33.51	26.94

Station 7016; 6 May; 44°11′ N., 49°12′ W.; depth 89 m.; dynamic height 971.057.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.18	33.16	0	−0.18	33.16	26.65
26	−0.36	33.34	25	−0.36	33.33	26.79
52	−0.45	33.37	50	−0.45	33.37	26.83
78	−0.45	33.37	75	−0.45	33.37	26.83

Station 7017; 6 May; 44°11′ N., 49°23′ W.; depth 55 m.; dynamic height 971.069.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.45	33.11	0	0.45	33.11	26.58
25	−0.30	33.11	25	−0.30	33.11	26.61
50	−0.30	-----	50	−0.30	33.11	26.61

Station 7018; 6 May; 44°58′ N., 49°24′ W.; depth 71 m.; dynamic height 971.066.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.14	33.13	0	0.14	33.13	26.61
24	−0.22	33.25	25	−0.25	33.25	26.72
48	−0.57	33.28	50	−0.60	33.28	26.76

Station 7019; 6 May; 44°75′ N., 49°18′ W.; depth 116 m.; dynamic height 971.065.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.32	33.23	0	−0.32	33.23	26.71
26	−0.48	33.23	25	−0.50	33.23	26.72
52	−0.67	33.26	50	−0.65	33.26	26.75
77	−0.72	33.27	75	−0.70	33.27	26.76
103	−0.75	33.28	100	−0.75	33.28	26.77

Station 7020; 7 May; 44°53′ N., 49°03′ W.; depth 677 m.; dynamic height 971.058.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.11	33.25	0	−0.11	33.25	26.72
25	−0.39	33.28	25	−0.39	33.28	26.75
49	−0.78	33.32	50	−0.80	33.32	26.80
74	−0.85	33.32	75	−0.85	33.32	26.80
98	−0.80	33.33	100	−0.80	33.33	26.81
148	−0.65	33.39	150	−0.65	33.39	26.86
197	−0.20	33.54	200	−0.15	33.58	26.99
295	2.08	34.34	300	2.20	34.38	27.48
400	3.39	34.76	400	3.40	34.76	27.68
601	3.66	34.85	600	3.65	34.85	27.72

Station 7021; 7 May; 44°50′ N., 48°46′ W.; depth 1,728 m.; dynamic height 970.982.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.31	33.14	0	0.31	33.14	26.61
25	−0.72	33.40	25	−0.72	33.40	26.87
50	−0.44	33.49	50	−0.44	33.49	26.93
75	0.87	33.76	75	0.87	33.76	27.08
100	0.75	33.82	100	0.75	33.82	27.14
150	1.26	34.02	150	1.26	34.02	27.26
199	1.66	34.24	200	1.65	34.25	27.42
299	2.47	34.52	300	2.50	34.52	27.57
347	2.58	34.55	400	2.85	34.63	27.62
521	3.56	34.82	600	3.70	34.87	27.74
695	3.76	34.89	800	3.75	34.89	27.74
876	3.71	34.88	1,000	3.65	34.88	27.74
1,339	3.58	34.89				

Station 7022; 7 May; 44°46′ N., 48°32′ W.; depth 2,241 m.; dynamic height 970.899.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.96	33.63	0	1.96	33.63	26.90
25	2.63	33.84	25	2.63	33.84	27.01
51	1.91	33.92	50	1.90	33.92	27.14
76	2.84	34.26	75	2.70	34.25	27.33
102	2.51	34.35	100	2.55	34.34	27.42
153	3.77	34.64	150	3.70	34.62	27.54
204	4.68	34.82	200	4.65	34.81	27.59
306	3.97	34.83	300	4.00	34.83	27.67
397	3.93	34.88	400	3.95	34.88	27.71
596	3.78	34.90	600	3.70	34.90	27.76
795	3.59	34.885	800	3.60	34.89	27.76
993	3.51	34.895	1,000	3.50	34.90	27.78
1,481	3.42	34.93				

Station 7023; 7 May; 44°42.5′ N., 47°57′ W.; depth 3,292 m.; dynamic height 970.932.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.10	33.58	0	2.10	33.58	26.85
25	3.83	34.03	25	3.83	34.03	27.05
50	3.31	34.01	50	3.31	34.01	27.09
75	2.41	34.08	75	2.41	34.08	27.22
101	3.19	34.30	100	3.15	34.30	27.33
151	3.55	34.47	150	3.55	34.46	27.42
201	4.01	34.64	200	4.00	34.64	27.52
302	4.10	34.80	300	4.10	34.80	27.64
484	3.91	34.86	400	4.00	34.84	27.68
682	3.73	34.89	600	3.80	34.88	27.73
881	3.60	34.89	800	3.65	34.89	27.75
1,079	3.48	34.90	1,000	3.50	34.90	27.78
1,478	3.44	34.91				

Station 7024; 7 May; 44°36′ N., 47°17′ W.; depth 3,841 m. dynamic height 970.927.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.18	33.95	0	6.18	33.95	26.72
25	3.24	33.98	25	3.24	33.98	27.07
49	3.35	34.02	50	3.35	34.02	27.09
74	2.84	34.13	75	2.85	34.13	27.22
99	3.15	34.29	100	3.15	34.29	27.32
148	3.63	34.50	150	3.65	34.50	27.44
197	4.06	34.69	200	4.05	34.69	27.55
296	3.55	34.72	300	3.55	34.72	27.63
415	4.10	34.87	400	4.05	34.86	27.69
617	3.98	34.92	600	4.00	34.92	27.75
816	3.89	34.92	800	3.90	34.92	27.76
1,021	3.62	34.91	1,000	3.65	34.91	27.77

Station 7025; 7 May; 44°32′ N., 46°38′ W.; depth 3,841 m.; dynamic height 970.935.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.22	33.77	0	6.22	33.77	26.58
25	3.97	33.92	25	3.97	33.92	26.95
51	3.69	33.97	50	3.70	33.97	27.02
76	2.99	34.10	75	3.00	34.09	27.18
102	3.00	34.25	100	3.00	34.24	27.30
152	3.25	34.50	150	3.20	34.49	27.48
204	5.19	34.88	200	5.10	34.87	27.58
306	4.22	34.82	300	4.25	34.82	27.64
406	4.13	34.87	400	4.15	34.87	27.69
610	3.86	34.89	600	3.90	34.89	27.73
816	3.67	34.89	800	3.70	34.89	27.75
1,018	3.54	34.895	1,000	3.55	34.89	27.76
1,518	3.43					

Station 7026; 7 May; 44°24.5′ N., 45°56′ W.; depth 3,649 m.; dynamic height 970.999.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.40	33.31	0	6.40	33.31	26.19
25	3.71	33.52	25	3.71	33.52	26.67
50	5.58	34.24	50	5.58	34.24	27.03
74	3.20	33.98	75	3.20	33.98	27.07
99	7.85	34.86	100	7.80	34.85	27.20
149	3.37	34.29	150	3.40	34.29	27.30
198	6.30	34.83	200	6.30	34.83	27.40
297	5.30	34.85	300	5.25	34.85	27.55
378	4.37	34.88	400	4.40	34.89	27.67
563	4.71	34.99	600	4.70	34.98	27.71
746	4.11	34.935	800	3.95	34.91	27.71
937	3.70	34.88	1,000	3.65	34.88	27.74
1,422	3.47	34.90				

Station 7027; 8 May; 44°20.5′ N., 45°15′ W.; depth 3,851 m.; dynamic height 971.111.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.11	34.74	0	11.11	34.74	26.57
25	11.90	35.20	25	11.90	35.20	26.78
51	11.86	35.46	50	11.85	35.45	26.98
75	12.10	35.57	75	12.20	35.57	27.03
101	12.18	35.62	100	12.15	35.62	27.06
150	12.16	35.62	150	12.15	35.62	27.06
201	12.10	35.61	200	12.10	35.61	27.06
302	8.58	35.12	300	8.65	35.13	27.29
320	8.05	35.07	400	6.90	35.01	27.46
491	6.08	34.985	600	5.30	34.99	27.65
668	4.95	34.995	800	4.60	35.00	27.74
854	4.52	35.00	1,000	4.15	34.98	27.77
1,351	3.60	34.91				

Station 7028; 8 May; 44°52′ N., 45°18′ W.; depth 4,115 m.; dynamic height 971.168.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.30	35.24	0	12.30	35.24	26.74
23	12.26	35.24	25	12.25	35.24	26.75
46	12.41	35.43	50	12.45	35.41	26.86
69	12.51	35.47	75	12.50	35.47	26.88
93	12.50	35.47	100	12.45	35.46	26.88
139	12.01	35.37	150	11.95	35.38	26.91
185	11.87	35.46	200	11.85	35.47	27.00
278	11.75	35.53	300	11.20	35.47	27.13
417	7.20	35.01	400	7.65	35.05	27.38
628	5.26	34.985	600	5.40	34.99	27.64
842	4.44	34.97	800	4.55	34.97	27.73
1,051	4.09	34.96	1,000	4.15	34.96	27.76
1,572	3.61	34.925				

Station 7029; 8 May; 45°21′ N., 45°15′ W.; depth 4,253 m.; dynamic height 971.100.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.89	34.92	0	11.89	34.92	26.57
25	11.85	35.16	25	11.85	35.16	26.76
51	11.54	35.26	50	11.55	35.25	26.89
76	11.61	35.34	75	11.60	35.33	26.94
102	11.81	35.43	100	11.80	35.42	26.98
152	10.40	35.19	150	10.45	35.19	27.04
203	10.51	35.33	200	10.50	35.33	27.14
305	8.44	35.12	300	8.55	35.13	27.31
401	5.23	34.78	400	5.25	34.78	27.49
602	5.02	34.985	600	5.05	34.98	27.67
803	4.63	35.005	800	4.65	35.00	27.74
1,001	4.00	34.95	1,000	4.00	34.95	27.77
1,493	3.55	34.92				

Station 7030; 8 May; 45°22.5′ N., 45°57′ W.; depth 3,512 m.; dynamic height 970.969.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.26	33.62	0	7.36	33.62	26.32
25	5.36	33.91	25	5.36	33.91	26.80
51	4.16	34.09	50	4.50	34.09	27.03
76	4.21	34.20	75	4.20	34.19	27.14
102	5.20	34.46	100	5.15	34.13	27.22
152	5.31	34.64	150	5.30	34.63	27.36
204	5.05	34.71	200	5.05	34.74	27.48
306	5.21	34.93	300	5.20	34.92	27.61
410	4.38	34.88	400	4.40	34.88	27.66
613	4.14	34.93	600	4.15	34.93	27.73
815	3.93	34.92	800	3.95	34.92	27.75
1,017	3.91	34.945	1,000	3.90	34.94	27.77
1,518	3.52	34.94				

Station 7031; 8 May; 45°23.5′ N., 46°37′ W.; depth 3,146 m.; dynamic height 970.925.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.49	33.84	0	6.49	33.84	26.59
25	3.82	34.02	25	3.82	34.02	27.05
50	3.24	34.26	50	3.24	34.26	27.29
75	2.95	34.35	75	2.95	34.35	27.39
100	3.62	34.49	100	3.62	34.49	27.41
150	4.28	34.65	150	4.28	34.65	27.50
199	4.81	34.83	200	4.80	34.83	27.58
299	3.55	34.73	300	3.55	34.73	27.63
396	3.80	34.795	400	3.85	34.80	27.66
580	3.88	34.865	600	3.85	34.87	27.72
771	3.71	34.88	800	3.70	34.88	27.74
970	3.57	34.875	1,000	3.55	34.88	27.75
1,461	3.46	34.91				

Station 7032; 9 May; 45°19′ N., 47°21′ W.; depth 2,469 m.; dynamic height 970.968.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.81	33.99	0	4.81	33.99	26.92
24	3.58	34.04	25	3.60	34.05	27.09
48	3.80	34.13	50	3.80	34.14	27.14
73	3.48	34.21	75	3.45	34.22	27.24
97	3.51	34.28	100	3.50	34.28	27.28
146	3.15	34.28	150	3.15	34.28	27.31
194	3.61	34.43	200	3.70	34.45	27.40
291	4.50	34.77	300	4.50	34.78	27.57
393	4.45	34.88	400	4.45	34.88	27.66
591	3.87	34.85	600	3.85	34.85	27.70
789	3.66	34.85	800	3.65	34.85	27.72
987	3.55	34.88	1,000	3.55	34.88	27.75
1,481	3.38	34.87				

Station 7033; 9 May; 45°28.5′ N., 47°44′ W.; depth 1,554 m.; dynamic height 970.953.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.55	33.885	0	4.55	33.88	26.85
24	3.14	33.94	25	3.10	33.94	27.05
48	2.50	33.94	50	2.50	33.95	27.11
73	3.04	34.05	75	3.05	34.06	27.15
97	3.17	34.22	100	3.20	34.24	27.28
146	3.53	34.40	150	3.60	34.43	27.39
194	4.51	34.66	200	4.50	34.68	27.49
291	4.03	34.76	300	4.05	34.77	27.62
367	4.35	34.81	400	4.30	34.85	27.66
554	3.92	34.87	600	3.90	34.87	27.72
743	3.47	34.88	800	3.75	34.88	27.73
936	3.60	34.88	1,000	3.60	34.88	27.75
1,430	3.46	34.89				

Station 7034; 9 May; 45°41.5′ N., 48°04′ W.; depth 637 m.; dynamic height 970.976.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.20	33.11	0	0.20	33.11	26.59
25	0.27	33.46	25	0.27	33.46	26.87
51	0.32	33.64	50	0.30	33.64	27.01
75	1.17	33.86	75	1.15	33.86	27.14
100	1.36	33.94	101	1.35	33.94	27.19
151	1.53	34.18	150	1.50	34.17	27.37
202	1.93	34.34	200	1.90	34.33	27.46
303	2.44	34.47	300	2.40	34.46	27.53
404	2.77	34.63	400	2.75	34.62	27.63
609	3.63	34.84	600	3.60	34.83	27.71

Station 7035; 9 May; 45°46.5′ N., 48°11′ W.; depth 180 m.; dynamic height 971.034.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	−0.29	32.88	0	−0.29	32.88	26.43
25	−1.27	33.00	25	−1.27	33.00	26.56
50	−1.41	33.20	50	−1.41	33.20	26.73
75	−1.20	33.34	75	−1.20	33.34	26.84
100	0.21	33.58	100	0.21	33.58	26.97
149	0.68	33.73	150	0.70	33.73	27.06

Station 7036; 9 May; 45°49′ N., 48°18′ W.; depth 115 m.; dynamic height 971.041.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.13	32.92	0	0.13	32.92	26.44
25	−0.67	33.02	25	−0.67	33.02	26.56
51	−1.36	33.21	50	−1.35	33.20	26.73
76	−1.21	33.30	75	−1.20	33.20	26.80
102	−0.97	33.37	100	−1.00	33.37	26.85

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t

Station 7037; 9 May; 45°53′ N., 48°30′ W.; depth 89 m.; dynamic height 971.046.

0	0.81	32.99	0	0.81	33.99	26.47
25	−0.57	33.10	25	−0.57	33.10	26.56
51	−0.69	33.14	50	−0.70	33.14	26.66
76	−0.98	33.15	75	−0.95	33.15	26.68

Station 7038; 9 May; 46°07′ N., 48°45′ W.; depth 68 m.; dynamic height 971.046.

0	0.75	33.06	0	0.75	33.06	26.52
26	−0.20	33.12	25	−0.15	33.11	26.61
52	−0.35	33.11	50	−0.35	33.11	26.61

Station 7039; 9 May; 46°17′ N., 49°01′ W.; depth 64 m.; dynamic height 971.051.

0	1.15	33.00	0	1.15	33.00	26.46
25	0.66	33.04	25	0.26	33.04	26.51
50	0.23	33.06	50	0.23	33.06	26.55

Station 7040; 9 May; 46°15′ N., 48°30′ W.; depth 89 m.; dynamic height 971.047.

0	0.55	33.06	0	0.55	33.06	26.53
24	−0.24	33.10	25	−0.25	33.10	26.60
49	−0.43	33.11	50	−0.45	33.11	26.62
73	−0.54	33.11	75	−0.55	33.11	26.62

Station 7041; 9 May; 46°14′ N., 48°02′ W.; depth 115 m.; dynamic height 971.054.

0	0.24	32.90	0	0.24	32.90	26.42
25	−0.18	32.96	25	−0.18	32.86	26.49
51	−0.97	33.00	50	−0.95	33.01	26.56
76	−0.86	33.02	75	−0.85	33.02	26.56
102	−1.37	33.20	100	−1.30	33.18	26.70

Station 7042; 9 May; 46°12.5′ N., 47°44′ W.; depth 169 m.; dynamic height 971.047.

0	0.08	32.86	0	0.08	32.86	26.40
26	−0.65	32.98	25	−0.65	32.97	26.52
52	−1.15	33.04	50	−1.15	33.02	26.58
77	−1.37	33.21	75	−1.35	33.18	26.71
103	−1.07	33.30	100	−1.10	33.28	26.78
155	−0.62	33.45	150	−0.65	33.43	26.89

Station 7043; 9 May; 46°10′ N., 47°22′ W.; depth 659 m.; dynamic height 971.016.

0	0.27	32.86	0	0.27	32.86	26.39
25	−1.48	33.06	25	−1.48	33.06	26.61
50	−1.28	33.32	50	−1.28	33.28	26.74
75	−0.57	33.44	75	−0.57	33.44	26.89
100	−0.06	33.56	100	−0.06	33.56	26.97
150	1.56	34.10	150	1.56	34.10	27.30
199	2.01	34.22	200	2.05	34.22	27.37
299	2.66	34.55	300	2.70	34.55	27.57
398	3.15	34.705	400	3.15	34.71	27.66
597	3.66	34.82	600	3.65	34.83	27.70

Station 7044; 10 May; 46°09′ N., 47°05′ W.; depth 1,463 m.; dynamic height 970.947.

0	0.53	33.26	0	0.53	33.26	26.69
24	−0.03	33.34	25	0.00	33.35	26.80
49	0.74	33.76	50	0.75	33.79	27.11
73	1.49	34.00	75	1.55	34.03	27.24
98	2.19	34.26	100	2.20	34.27	27.40
146	2.17	34.39	150	2.20	34.40	27.50
195	2.60	34.51	200	2.60	34.52	27.56
292	2.92	34.66	300	2.95	34.67	27.65
382	3.24	34.72	400	3.30	34.73	27.66
573	3.78	34.84	600	3.80	34.84	27.70
764	3.70	34.84	800	3.70	34.84	27.71
958	3.59	34.84	1,000	3.60	34.84	27.72
1,351	3.48	34.87				

Station 7045; 10 May; 46°09′ N., 46°32′ W.; depth 494 m.; dynamic height 970.876.

0	3.28	34.06	0	3.28	34.06	27.13
24	3.29	34.06	25	3.29	34.06	27.13
51	2.51	34.18	50	2.50	34.18	27.29
76	2.29	34.29	75	2.30	34.29	27.40
102	3.09	34.60	100	3.05	34.59	27.57
152	3.32	34.68	150	3.35	34.67	27.61
204	3.27	34.73	200	3.30	34.73	27.66
306	3.67	34.80	300	3.65	34.80	27.68
351	3.81	34.86	400	3.85	34.87	27.72
397	3.83	34.87				

Station 7046; 10 May; 46°08.5′ N., 45°54′ W.; depth 1,646 m.; dynamic height 970.886.

0	5.22	34.27	0	5.22	34.27	27.09
25	5.12	34.26	25	5.12	34.26	27.09
52	3.68	34.41	50	3.75	34.40	27.35
77	3.51	34.46	75	3.50	34.45	27.42
103	2.96	34.51	100	3.00	34.50	27.51
154	3.00	34.58	150	3.00	34.57	27.57
206	3.13	34.65	200	3.10	34.64	27.61
309	3.67	34.79	300	3.65	34.78	27.66
397	3.67	34.84	400	3.65	34.84	27.71
594	3.73	34.875	600	3.70	34.87	27.74
792	3.58	34.89	800	3.60	34.89	27.76
991	3.48	34.90	1,000	3.45	34.90	27.78
1,493	3.37	34.91				

Station 7047; 10 May; 46°06′ N., 45°16′ W.; depth 3,410 m.; dynamic height 970.938.

0	6.00	34.36	0	6.00	34.36	27.07
25	5.28	34.42	25	5.28	34.42	27.20
49	3.97	34.49	50	3.95	34.49	27.40
74	3.67	34.48	75	3.65	34.18	27.42
99	3.41	34.47	100	3.40	34.47	27.45
148	3.41	34.56	150	3.40	34.56	27.52
197	3.62	34.64	200	3.60	34.64	27.56
296	3.39	34.68	300	3.40	34.68	27.61
380	3.38	34.69	400	3.40	34.69	27.62
575	3.59	34.775	600	3.55	34.78	27.67
764	3.74	34.815	800	3.80	34.83	27.69
970	3.88	34.90	1,000	3.90	34.90	27.74
1,468	-----	34.91				

Station 7048; 10 May; 46°03.5′ N., 44°37′ W.; depth 3,841 m.; dynamic height 971.122.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.72	34.29	0	9.72	34.29	26.47
25	10.04	34.53	25	10.04	34.53	26.60
52	11.60	35.11	50	11.40	35.08	26.78
77	11.96	35.26	75	11.90	35.24	26.81
103	12.54	35.44	100	12.50	35.43	26.84
151	10.14	35.06	150	10.30	35.08	26.98
206	9.44	35.07	200	9.50	35.07	27.11
310	8.16	35.02	300	8.30	35.02	27.27
412	6.47	35.01	400	6.65	35.01	27.50
617	5.11	35.02	600	5.20	35.02	27.69
821	4.57	35.00	800	4.60	35.00	27.74
1,026	4.11	34.955	1,000	4.15	34.96	27.76
1,536	3.61	34.935				

Station 7049; 10 May; 46°24′ N., 44°42′ W.; depth 1,646 m.; dynamic height 971.025.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.42	33.82	0	7.42	33.82	26.45
25	10.01	34.85	25	10.01	34.85	26.85
50	10.20	34.95	50	10.20	34.95	26.90
75	10.89	35.20	75	10.89	35.20	26.97
101	11.31	35.40	100	11.30	35.40	27.05
151	8.67	35.02	150	8.70	35.03	27.20
201	6.28	34.73	200	6.30	34.73	27.32
302	5.58	34.94	300	5.60	34.94	27.57
388	5.12	34.86	400	5.05	34.85	27.57
581	3.65	34.82	600	3.65	34.82	27.70
773	3.70	34.87	800	3.70	34.87	27.74
964	3.60	34.885	1,000	3.60	34.86	27.74
1,437	3.47	34.89				

Station 7050; 10 May; 46°30′ N., 44°44′ W.; depth 677 m.; dynamic height 971.000.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.89	33.74	0	6.89	33.74	26.46
25	9.46	34.66	25	9.16	34.66	26.85
50	10.30	35.00	50	10.30	35.00	26.92
75	6.98	34.50	75	6.98	34.50	27.05
101	4.94	34.30	100	4.95	34.30	27.15
151	6.13	34.65	150	6.10	34.64	27.27
201	6.14	34.78	200	6.10	34.78	27.38
302	5.13	34.82	300	5.15	34.82	27.54
400	4.95	34.93	400	4.95	34.93	27.64
601	3.84	34.86	600	3.85	34.86	27.71

Station 7051; 10 May; 46°35.5′ N., 44°44′ W.; depth 224 m.; dynamic height 970.896.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.56	34.28	0	4.56	34.28	27.17
25	3.79	34.29	25	3.79	34.29	27.26
49	3.07	34.35	50	3.05	34.35	27.38
74	2.86	34.36	75	2.85	34.36	27.41
99	2.69	34.39	100	2.70	34.39	27.44
148	2.75	34.52	150	2.75	34.52	27.55
197	3.04	34.63	200	3.05	34.63	27.60

Station 7052; 10 May; 46°40.5′ N., 44°44′ W.; depth 169 m.; dynamic height 970.895.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.45	34.28	0	4.45	34.28	27.18
25	4.02	34.28	25	4.02	34.28	27.23
50	3.06	34.37	50	3.06	34.37	27.40
75	2.98	34.39	75	2.98	34.39	27.42
101	2.79	34.40	100	2.80	34.40	27.44
151	2.93	34.52	150	2.90	34.52	27.54

Station 7053; 10 May; 46°48′ N., 44°51′ W.; depth 143 m.; dynamic height 970.898.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.16	34.26	0	4.16	34.26	27.20
25	3.44	34.28	25	3.44	34.28	27.28
50	2.88	34.30	50	2.88	34.30	27.36
76	2.83	34.31	75	2.85	34.31	27.37
101	2.72	34.33	100	2.75	34.33	27.39
126	2.57	34.42				

Station 7054; 10 May; 46°47.6′ N.; 45°01′ W.; depth 172 m.; dynamic height 970.892.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.30	34.26	0	4.30	34.26	27.19
25	3.78	34.28	25	3.78	34.28	27.26
51	3.00	34.35	50	3.00	34.35	27.39
76	2.76	34.35	75	2.75	34.35	27.41
101	2.66	34.38	100	2.65	34.38	27.44
152	2.92	34.55	150	2.90	34.54	27.55

Station 7055; 11 May; 46°47′ N., 45°17′ W.; depth 220 m.; dynamic height 970.894.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.09	34.24	0	4.09	34.24	27.19
25	2.94	34.25	25	2.94	34.25	27.31
49	2.80	34.30	50	2.80	34.30	27.37
74	2.82	34.34	75	2.80	34.34	27.40
98	2.69	34.36	100	2.70	34.36	27.42
148	2.78	34.48	150	2.80	34.48	27.50
197	3.38	34.66	200	3.40	34.66	27.60

Station 7056; 11 May; 46°47.5′ N., 45°44′ W.; depth 274 m.; dynamic height 970.905.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.32	34.21	0	4.32	34.21	27.15
22	3.97	34.21	25	3.85	34.21	27.20
44	3.28	34.27	50	3.15	34.27	27.31
67	2.92	34.28	75	2.90	34.28	27.34
89	2.88	34.28	100	3.00	34.31	27.36
133	3.50	34.48	150	3.35	34.51	27.48
177	3.12	34.55	200	3.20	34.61	27.58
266	3.74	34.79				

Station 7057; 11 May; 46°47.5′ N., 46°08′ W.; depth 320 m.; dynamic height 970.896.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.80	34.22	0	3.80	34.22	27.21
25	3.69	34.22	25	3.69	34.22	27.22
50	3.00	34.27	50	3.00	34.27	27.33
75	2.95	34.28	75	2.95	34.28	27.33
99	2.70	34.36	100	2.70	34.37	27.43
149	3.01	34.51	150	3.00	34.51	27.52
199	3.52	34.67	200	3.55	34.68	27.59
298	3.83	34.81	300	3.85	34.81	27.67

Station 7058; 11 May; 46°47.5′ N., 46°32′ W.; depth 640 m.; dynamic height 970.883.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.05	33.59	0	2.05	33.59	26.87
25	3.18	34.08	25	3.18	34.08	27.15
50	2.40	34.22	50	2.40	34.22	27.34
74	2.18	34.32	75	2.20	34.32	27.44
99	2.53	34.50	100	2.55	34.51	27.56
149	2.77	34.60	150	2.75	34.61	27.62
198	2.80	34.65	200	2.80	34.65	27.64
297	3.05	34.72	300	3.05	34.72	27.68
393	3.45	34.79	400	3.45	34.79	27.69
590	3.64	34.875	600	3.60	34.88	27.75

Station 7059; 11 May; 46°47′ N., 46°49′ W.; depth 1,244 m.; dynamic height 970.885.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.95	33.49	0	1.95	33.49	26.79
25	3.06	34.05	25	3.05	34.04	27.13
50	2.90	34.24	50	2.90	34.24	27.31
75	2.52	34.29	75	2.52	34.29	27.38
100	2.68	34.53	100	2.68	34.53	27.56
200	2.90	34.68	150	2.78	34.64	27.64
300	3.20	34.74	200	2.90	34.68	27.66
380	3.42	34.78	300	3.20	34.74	27.68
556	3.77	34.86	400	3.50	34.79	27.69
721	3.66	34.88	600	3.75	34.87	27.73
882	3.55	34.88	800	3.60	34.88	27.75
1,002	3.45	34.89	1,000	3.45	34.89	27.77

Station 7060; 11 May; 46°45.5′ N., 47°11′ W.; depth 612 m.; dynamic height 970.940.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.32	33.10	0	1.32	33.10	26.52
25	0.45	33.40	25	0.45	33.40	26.81
50	0.36	33.60	50	0.36	33.60	26.98
75	0.99	33.91	75	0.99	33.91	27.19
101	1.68	34.10	100	1.65	34.09	27.29
151	2.16	34.34	150	2.15	34.33	27.44
201	2.52	34.50	200	2.50	34.49	27.54
302	2.89	34.65	300	2.90	34.64	27.63
387	3.22	34.76	400	3.30	34.77	27.70
579	3.69	34.86	600	3.70	34.86	27.73

Station 7061; 11 May; 46°45.5′ N., 47°17′ W.; depth 331 m.; dynamic height 970.981.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.02	32.95	0	0.02	32.95	26.48
24	0.38	33.17	25	0.35	33.18	26.64
19	−0.56	33.40	50	−0.55	33.40	26.86
73	−0.19	33.51	75	−0.15	33.51	26.94
97	0.44	33.75	100	0.50	33.78	27.11
146	1.49	34.12	150	1.50	34.14	27.34
195	1.88	34.32	200	1.95	34.33	27.46
292	2.73	34.58	300	2.80	34.59	27.59

Station 7062; 11 May; 46°46′ N., 47°30′ W.; depth 183 m.; dynamic height 971.025.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.34	32.92	0	0.34	32.92	26.43
25	−0.40	33.06	25	−0.40	33.06	26.61
49	−1.47	33.19	50	−1.45	33.19	26.72
74	−1.34	33.28	75	−1.35	33.28	26.79
98	−0.80	33.40	100	−0.80	33.41	26.88
147	0.89	33.79	150	1.00	33.82	27.12

Station 7063; 11 May; 46°49′ N., 48°05′ W.; depth 119 m.; dynamic height 971.043.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.49	33.03	0	0.49	33.03	26.51
25	0.41	33.01	25	0.41	33.04	26.53
50	−0.55	33.08	50	−0.55	33.08	26.60
75	−0.72	33.09	75	−0.72	33.09	26.61
100	−0.84	33.34	100	−0.84	33.34	26.82

Station 7064; 11 May; 46°47.5′ N., 48°43′ W.; depth 95 m.; dynamic height 971.044.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.16	33.11	0	0.16	33.11	26.59
25	0.12	33.11	25	0.12	33.11	26.60
50	−0.13	33.13	50	−0.13	33.13	26.62
75	−0.32	33.16	75	−0.32	33.16	26.65
95	−0.30	33.16	100	−0.30	33.16	26.65

Station 7065; 27 May; 42°00′ N., 50°58′ W.; depth 3,383 m.; dynamic height 971.001.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.37	33.18	0	4.37	33.18	26.32
24	4.36	33.19	25	4.35	33.19	26.33
47	2.20	33.38	50	2.20	33.42	26.72
71	2.24	33.72	75	2.60	33.78	26.96
94	3.05	34.02	100	3.10	34.06	27.15
141	3.41	34.30	150	3.55	34.35	27.33
189	4.20	34.58	200	4.35	34.64	27.48
283	5.79	34.98	300	5.60	34.96	27.59
347	4.90	34.89	400	4.60	34.89	27.65
526	4.19	34.89	600	4.20	34.91	27.72
708	4.30	34.96	800	4.15	34.95	27.75
894	3.95	34.94	1,000	3.90	34.94	27.77
1,377	3.70	34.94				

Station 7066; 27 May; 41°55.5′ N., 51°52′ W.; depth 3,932 m.; dynamic height 971.159.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.89	33.32	0	6.89	33.32	26.13
25	9.33	34.04	25	9.33	34.04	26.33
50	13.56	35.57	50	13.56	35.57	26.74
75	11.73	35.19	75	11.73	35.19	26.80
101	12.33	35.38	100	12.30	35.37	26.84
150	12.53	35.46	150	12.55	35.46	26.86
201	9.21	34.92	200	9.20	34.92	27.04
302	8.35	35.07	300	8.35	35.07	27.30
380	6.34	34.86	400	6.15	34.86	27.44
577	4.81	34.92	600	4.75	34.92	27.66
778	4.29	34.91	800	4.25	34.91	27.71
973	4.16	34.95	1,000	4.15	34.95	27.75
1,466	3.61	34.915				

Station 7067; 27 May; 42°20.5′ N., 51°26′ W.; depth 2,916 m.; dynamic height 970.991.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.61	33.14	0	4.61	33.14	26.26
25	4.26	33.16	25	4.26	33.16	26.31
51	2.20	33.70	50	2.20	33.69	26.92
76	3.44	34.14	75	3.40	34.13	27.17
102	4.90	34.42	100	4.80	34.42	27.26
152	4.76	34.54	150	4.75	34.54	27.36
204	5.29	34.76	200	5.25	34.74	27.46
306	4.41	34.78	300	4.45	34.78	27.58
403	5.31	35.01	400	5.30	35.00	27.66
604	4.28	34.93	600	4.30	34.93	27.71
804	4.18	34.95	800	4.20	34.95	27.75
1,005	3.86	34.94	1,000	3.85	34.94	27.77
1,509	3.59	34.935				

Station 7068; 27 May; 42°44.5′ N., 51°02′ W.; depth 1,646 m.; dynamic height 971.074.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.53	33.04	0	2.53	33.04	26.39
25	2.16	33.04	25	2.16	33.04	26.41
52	−0.63	33.24	50	−0.60	33.22	26.71
77	−1.06	33.43	75	−1.05	33.41	26.89
103	0.49	33.64	100	0.30	33.62	27.00
154	1.52	33.81	150	1.45	33.80	27.07
206	4.62	34.43	200	4.30	34.36	27.27
309	3.40	34.53	300	3.50	34.52	27.48
415	2.99	34.63	400	3.05	34.60	27.58
620	3.63	34.79	600	3.55	34.73	27.63
824	3.81	34.85	800	3.80	34.84	27.70
1,030	3.74	34.88	1,000	3.75	34.87	27.73

Station 7069; 27 May; 42°54′ N., 50°52′ W.; depth 1,097 m.; dynamic height 971.049.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.93	32.91	0	2.93	32.91	26.24
24	1.40	33.13	25	1.40	33.13	26.54
48	0.96	33.195	50	0.95	33.20	26.63
72	4.08	33.835	75	4.05	33.84	26.87
96	2.93	33.865	100	2.85	33.87	27.02
144	2.23	33.925	150	2.15	33.93	27.12
192	1.60	33.99	200	1.60	34.01	27.23
288	2.79	34.50	300	2.85	34.54	27.55
389	3.19	34.66	400	3.25	34.67	27.62
587	3.76	34.825	600	3.75	34.83	27.69
787	3.80	34.86	800	3.80	34.86	27.72
982	3.74	34.875	1,000	3.75	34.88	27.73

Station 7070; 27 May; 43°00′ N., 50°15′ W.; depth 649 m.; dynamic height 971.079.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.93	32.94	0	2.93	32.94	26.27
26	1.68	33.225	25	1.70	33.22	26.59
51	6.53	34.115	50	6.35	34.09	26.81
77	8.26	34.64	75	8.25	34.63	26.96
103	5.76	34.27	100	6.10	34.31	27.02
153	4.61	33.945	150	4.75	33.96	27.18
205	4.42	34.37	200	4.25	34.35	27.26
308	3.42	34.35	300	3.50	34.35	27.34
402	2.88	34.525	400	2.90	34.52	27.54
598	3.56	34.76	(600)	3.55	34.76	27.66

Station 7071; 27 May; 43°01.5′ N., 50°41′ W.; depth 169 m.; dynamic height 971.113

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	3.07	32.83	0	3.07	32.83	26.17
25	1.93	33.01	25	1.93	33.01	26.41
50	0.53	33.25	50	0.53	33.25	26.68
75	0.32	33.49	75	0.32	33.49	26.89
101	0.56	33.57	100	0.55	33.57	26.95
151	0.64	33.61	150	0.70	33.61	26.97

Station 7072; 27 May; 43°08.5′ N., 50°35′ W.; depth 93 m.; dynamic height 971.128.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	3.37	32.82	0	3.37	32.82	26.14
25	1.94	33.00	25	1.94	33.00	26.40
50	0.58	33.18	50	0.58	33.18	26.62
75	−0.05	33.24	75	−0.05	33.24	26.71

Station 7073; 28 May; 43°21.5′ N., 50°15′ W.; depth 68 m.; dynamic height 971.144.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	3.65	32.51	0	3.65	32.51	25.86
22	3.36	32.51	25	3.35	32.55	25.92
45	1.35	32.98	(50)	1.00	33.10	26.54

Station 7074; 28 May; 42°58′ N., 50°18′ W.; depth 95 m.; dynamic hegiht 971.120.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.10	33.05	0	2.10	33.05	26.42
25	1.47	33.08	25	1.47	33.08	26.49
49	0.56	33.22	50	0.55	33.22	26.66
74	0.18	33.38	(75)	0.20	33.37	26.80

Station 7075; 28 May; 42°51′ N., 50°16′ W.; depth 364 m.; dynamic height 971.107.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.39	33.03	0	2.39	33.03	26.39
25	0.94	33.17	25	0.94	33.17	26.59
50	0.36	33.25	50	0.36	33.25	26.69
75	−0.14	33.38	75	−0.14	33.38	26.82
100	0.08	33.44	100	0.08	33.44	26.86
150	0.91	33.75	150	0.91	33.75	27.06
200	1.40	33.94	200	1.40	33.94	27.17
300	2.11	34.28	300	2.11	34.28	27.40

Station 7076; 28 May; 42°39′ N.; 50°16′ W.; depth 1,735 m.; dynamic height 971.035.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	1.88	33.21	0	1.88	33.21	26.58
25	1.40	33.21	25	1.40	33.21	26.60
50	0.83	33.53	50	0.83	33.53	26.89
75	1.18	33.67	75	1.18	33.67	26.98
100	1.77	33.78	100	1.77	33.78	27.03
150	2.49	33.97	150	2.49	33.97	27.13
199	2.45	34.15	200	2.45	34.14	27.26
299	2.75	34.49	300	2.75	34.49	27.52
402	2.92	34.62	400	2.90	34.62	27.62
601	3.53	34.78	600	3.50	34.77	27.68
800	3.92	34.88	800	3.95	34.87	27.71
1,000	4.02	34.94	1,000	4.00	34.94	27.76

Station 7077; 28 May; 42°24.5′ N., 50°14′ W.; depth 2,561 ,.; dynamic height 971.048.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	5.40	33.10	0	5.40	33.10	26.14
25	5.20	33.13	25	5.20	33.13	26.19
50	6.24	33.74	50	6.24	33.74	26.54
74	6.34	34.22	75	6.35	34.21	26.91
99	5.56	34.34	100	5.55	34.33	27.10
149	7.15	34.81	150	7.15	34.81	27.27
198	7.20	34.96	200	7.20	34.95	27.37
297	2.98	34.50	300	3.00	34.50	27.51
396	4.35	34.81	400	4.40	34.80	27.60
592	4.48	34.94	600	4.45	34.93	27.70
785	3.87	34.895	800	3.85	34.89	27.73
982	3.66	34.89	1,000	3.65	34.88	27.74
1,476	3.49	34.90				

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Station 7078; 28 May; 42°00.5′N., 50°14′ W.; depth 3,170 m.; dynamic height 971.168.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.90	33.22	0	6.90	33.22	26.05
25	8.34	33.83	25	8.34	33.83	26.32
50	10.71	34.84	50	10.71	34.84	26.71
75	11.48	35.08	75	11.48	35.08	26.76
100	11.84	35.22	100	11.84	35.22	26.80
150	12.55	35.47	150	12.55	35.47	26.86
200	11.51	35.42	200	11.51	35.42	27.02
300	7.92	34.96	300	7.92	34.96	27.27
399	6.96	34.92	400	6.95	35.01	27.16
599	4.06	34.80	600	4.05	34.79	27.63
799	4.83	35.025	800	4.85	35.02	27.73
1,001	4.40	35.00	1,000	4.40	35.00	27.76
1,510	3.72	34.94				

Station 7079; 28 May; 41°31.5′ N., 50°13′ W.; depth 3,932 m.; dynamic height 971.313.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.80	34.40	0	10.80	34.40	26.36
25	12.40	35.02	25	12.40	35.02	26.55
50	14.18	35.64	50	14.18	35.64	26.65
74	13.25	35.69	75	11.25	35.68	26.67
99	14.13	35.68	100	14.15	35.68	26.70
149	13.56	35.61	150	13.55	35.60	26.76
199	12.75	35.47	200	12.75	35.17	26.83
288	12.43	35.44	300	12.40	35.43	26.87
390	10.45	35.32	400	10.20	35.29	27.16
583	6.61	35.05	600	6.45	35.03	27.53
775	5.24	35.00	800	5.10	34.99	27.67
970	4.59	34.99	1,000	4.55	34.98	27.73
1,458	3.87	34.95				

Station 7080; 29 May; 41°00′ N., 50°15′ W.; depth 3,566 m.; dynamic height 971.391.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.40	36.03	0	15.40	36.03	26.69
25	15.33	36.03	25	15.33	36.03	26.70
50	15.21	36.01	50	15.21	36.01	26.72
75	15.21	36.01	75	15.21	36.01	26.72
101	15.24	36.02	100	15.25	35.91	26.72
151	14.75	35.91	150	14.75	35.91	26.74
202	13.71	35.66	200	13.75	35.66	26.77
303	13.51	35.63	300	13.50	35.63	26.79
399	12.45	35.56	400	12.45	35.55	26.94
597	8.08	35.10	600	8.00	35.09	27.36
794	5.07	34.93	800	5.05	34.92	27.63
991	4.37	34.93	1,000	4.35	34.92	27.71
1,484	3.86	34.95				

Station 7081; 29 May; 42°00.5′ N., 49°23′ W.; depth 2,880 m.; dynamic height 971.114.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.94	33.82	0	8.94	33.83	26.23
25	11.60	34.68	25	11.60	34.68	26.43
50	14.19	35.67	50	14.19	35.67	26.68
75	12.76	35.42	75	12.76	35.42	26.78
100	12.27	35.34	100	12.27	35.34	26.82
150	12.67	35.54	150	12.67	35.54	26.90
201	10.13	35.22	200	10.20	35.22	27.11
301	7.33	34.98	300	7.30	34.98	27.38
380	4.49	34.74	400	4.30	34.73	27.56
567	3.43	34.76	600	3.50	34.76	27.67
752	3.81	34.865	800	3.85	34.88	27.72
940	3.89	34.91	1,000	3.85	34.91	27.75
1,410	3.78	34.94				

Station 7082; 29 May; 41°31.5′ N., 48°55′ W.; depth 3483 m.; dynamic hiehgt 971.181.

Observed values			Sclaed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.27	33.67	0	9.27	33.67	26.04
25	10.87	34.55	25	10.87	34.55	26.46
49	11.86	35.05	50	11.85	35.05	26.68
74	11.64	35.08	75	11.65	35.08	26.73
98	11.92	35.23	100	11.95	35.23	26.80
147	12.58	35.46	150	12.55	35.15	26.85
197	12.18	35.44	200	12.15	35.43	26.91
295	8.74	35.06	300	8.55	35.04	27.24
383	6.67	34.87	400	6.40	34.87	27.42
573	4.55	34.88	600	4.50	34.88	27.65
762	4.26	34.92	800	4.15	34.91	27.72
963	3.72	34.88	1,000	3.70	34.88	27.74
1,482	3.68	34.93				

Station 7083; 29 May; 41°00′ N., 48°26′ W.; depth 3,182 m.; dynamic height 971.206.

Observed values			Sclaed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.73	33.46	0	8.73	33.46	25.97
24	13.68	35.40	25	13.65	35.39	26.58
49	13.44	35.52	50	13.45	35.51	26.72
73	13.28	35.52	75	13.25	35.52	26.76
97	13.08	35.52	100	13.05	35.51	26.80
146	12.70	35.46	150	12.70	35.45	26.82
195	12.68	35.50	200	12.65	35.50	26.87
292	10.50	35.30	300	10.30	35.28	27.13
391	8.06	35.08	400	7.90	35.06	27.36
592	5.58	35.04	600	5.50	35.04	27.66
776	4.42	34.95	(800)	4.35	34.95	27.72
			(1,000)	4.05	34.94	27.74

Station 7084; 29 May; 41°31.5′ N., 47°15′ W.; depth 1,280 m.; dynamic height 971.035.

Observed values			Sclaed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.24	33.67	0	8.24	33.67	26.21
25	4.08	33.55	25	4.08	33.55	26.64
49	3.50	33.61	50	3.50	33.61	26.75
74	3.32	33.75	75	3.30	33.75	26.88
99	0.89	33.77	100	0.90	33.77	27.09
148	5.71	34.56	150	5.70	34.56	27.26
197	5.37	34.59	200	5.35	34.58	27.32
296	3.99	34.59	300	4.00	34.59	27.48
395	5.53	34.01	400	5.50	35.00	27.63
592	4.39	34.92	600	4.35	34.91	27.70
789	4.41	34.98	800	4.40	34.98	27.74
985	4.18	34.96	1,000	4.20	34.96	27.76
1,471	3.66	34.93				

Station 7085; 30 May; 41°59′ N., 47°55′ W.; depth 3,731 m.; dynamic height 970.943.

Observed values			Sclaed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.35	33.67	0	7.35	33.67	26.35
24	6.02	33.77	25	5.90	33.78	26.62
48	4.08	34.06	50	4.05	34.06	27.06
72	3.87	34.26	75	3.90	34.29	27.25
96	4.25	34.46	100	4.30	34.47	27.36
144	4.51	34.62	150	4.50	34.63	27.45
192	4.52	34.72	200	4.60	34.73	27.52
288	5.57	35.02	300	5.55	35.02	27.65
400	5.23	35.04	400	5.25	35.04	27.70
596	4.36	34.97	600	4.35	34.97	27.75
791	4.08	34.96	800	4.05	34.95	27.76
988	3.92	34.96	1,000	3.90	34.95	27.78
1,480	3.55	34.94				

Station 7086; 30 May; 42°20′ N., 48°31′ W.; depth 3,017 m.; dynamic height 971.001.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.57	33.62	0	7.57	33.62	26.26
25	7.35	33.82	25	7.35	33.82	26.46
51	6.89	34.17	50	6.90	34.16	26.79
76	7.43	34.66	75	7.40	34.64	27.10
101	7.40	34.75	100	7.40	34.74	27.18
152	6.01	34.66	150	6.05	34.67	27.31
203	4.23	34.51	200	4.30	34.54	27.41
304	5.04	34.86	300	5.00	34.85	27.58
400	5.19	34.98	400	5.20	34.98	27.65
600	4.53	34.97	600	4.55	34.96	27.72
800	4.17	34.97	800	4.15	34.96	27.76
999	4.03	34.97	1,000	4.05	34.96	27.77
1,494	3.58	34.93				

Station 7087; 30 May; 42°42′ N., 49°10′ W.; depth 2,122 m.; dynamic height 970.957.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.71	33.58	0	6.71	33.58	26.36
25	4.33	33.64	25	4.33	33.64	26.70
50	3.07	33.78	50	3.07	33.78	26.92
74	2.31	34.16	75	2.30	34.16	27.30
99	2.40	34.25	100	2.35	34.25	27.36
149	4.44	34.64	150	4.45	34.64	27.47
199	4.36	34.71	200	4.35	34.71	27.54
298	4.67	34.88	300	4.70	34.87	27.63
390	4.78	34.94	400	4.89	34.89	27.63
585	4.84	34.03	600	4.80	34.02	27.74
779	4.17	34.96	800	4.10	34.94	27.75
974	3.80	34.92	1,000	3.80	34.92	27.77
1,163	3.48	34.90				

Station 7088; 30 May; 43°17.5′ N., 48°44′ W.; depth 2,103 m.; dynamic height 970.945.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.94	33.74	0	5.94	33.74	26.58
24	4.15	33.74	25	4.10	33.73	26.79
49	3.45	33.89	50	3.45	33.90	26.98
73	2.84	34.07	75	2.85	34.10	27.20
98	3.14	34.29	100	3.15	34.30	27.33
145	3.40	34.52	150	3.40	34.52	27.49
193	3.24	34.60	200	3.25	34.60	27.56
292	4.06	34.81	300	4.10	34.82	27.66
377	4.14	34.87	400	4.10	34.86	27.69
566	3.68	34.86	600	3.65	34.85	27.72
756	3.61	34.84	800	3.60	34.84	27.72
949	3.55	34.87	1,000	3.55	34.87	27.75
1,439	3.43	34.89				

Station 7089; 30 May; 43°08′ N., 48°11′ W.; depth 3,109 m.; dynamic height 970.980.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.86	33.78	0	7.86	33.78	26.35
23	5.28	33.68	25	5.15	33.67	26.63
46	3.84	33.65	50	3.70	33.66	26.78
69	3.19	34.03	75	3.20	34.08	27.15
92	3.52	34.23	100	3.55	34.26	27.26
138	3.43	34.39	150	3.55	34.39	27.36
184	3.92	34.44	200	4.00	34.48	27.39
276	4.34	34.79	300	4.25	34.81	27.63
377	4.24	34.86	400	4.25	34.86	27.67
565	4.11	34.91	600	4.05	34.91	27.73
753	3.68	34.86	800	3.65	34.86	27.73
947	3.65	34.905	1,000	3.60	34.90	27.77
1,444	3.42	34.91				

Station 7090; 31 May; 42°54′ N., 47°33′ W.; depth 3,676 m.; dynamic height 971.111.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.99	34.37	0	11.99	34.37	26.12
24	11.32	34.65	25	11.35	34.66	26.47
48	12.65	35.22	50	12.70	35.23	26.65
72	12.78	35.42	75	12.75	35.41	26.78
96	12.04	35.34	100	11.75	35.27	26.87
144	7.62	34.62	150	7.25	34.56	27.06
192	5.43	34.30	200	5.40	34.31	27.10
288	5.43	34.59	300	5.35	34.60	27.34
408	4.33	34.72	400	4.40	34.70	27.52
609	4.70	34.965	600	4.70	34.95	27.69
809	4.22	34.96	800	4.25	34.95	27.74
1,007	3.95	34.94	1,000	3.95	34.93	27.75
1,485	3.67	34.935				

Station 7091; 31 May; 42°38′ N., 46°46′ W.; depth 4,207 m.; dynamic height 971.404

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	17.54	36.34	0	17.54	36.34	26.43
25	17.52	36.34	25	17.52	36.34	26.43
49	17.26	36.31	50	17.25	36.30	26.47
74	16.97	36.26	75	16.95	36.25	26.50
98	16.56	36.23	100	16.50	36.22	26.59
146	15.30	35.94	150	15.25	35.93	26.65
196	14.67	35.84	200	14.60	35.86	26.74
294	12.60	35.45	300	12.50	35.44	26.85
413	11.54	35.45	400	11.70	35.44	27.01
617	7.60	35.09	600	7.90	35.11	27.40
819	5.58	35.04	800	5.75	35.04	27.63
1,024	4.58	34.985	1,000	4.65	34.98	27.72
1,534	3.81	34.95				

Station 7092; 31 May; 42°47′ N., 45°51′ W.; depth 4,663 m.; dynamic height 971.516.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	16.53	36.11	0	16.53	36.11	26.48
25	16.50	36.22	25	16.50	36.22	26.59
50	16.36	36.19	50	16.36	36.19	26.59
75	16.24	36.16	75	16.24	36.16	26.60
100	15.33	35.97	100	15.33	35.97	26.65
148	15.06	35.89	150	15.05	35.89	26.66
198	14.89	35.94	200	14.85	35.93	26.74
298	13.41	35.61	300	13.40	35.60	26.79
396	12.96	35.60	400	12.95	35.59	26.87
586	10.89	35.39	600	10.70	35.37	27.14
770	7.90	35.17	800	7.50	35.14	27.47
963	5.93	35.09	1,000	5.70	35.07	27.67
1,451	4.18	34.97				

Station 7093; 31 May; 43°20′ N., 46°00′ W.; depth 3,932 m.; dynamic height 971.423.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	15.44	35.94	0	15.44	35.94	26.61
25	15.42	35.98	25	15.42	35.98	26.65
49	15.35	35.99	50	15.35	35.98	26.66
74	15.35	35.98	75	15.35	35.98	26.66
98	15.32	35.98	100	15.30	35.98	26.67
147	14.60	35.82	150	14.55	35.80	26.70
196	13.91	35.68	200	13.85	35.66	26.75
294	12.80	35.49	300	12.75	35.49	26.84
386	12.56	35.57	400	12.45	35.44	26.86
575	8.99	35.20	600	8.50	35.16	27.34
762	5.97	34.98	800	5.50	34.95	27.60
953	4.34	34.89	1,000	4.20	34.89	27.70
1,433	3.99	34.94				

Station 7094; 31 May; 43°34.5′ N., 46°10′ W.; depth 3,948 m.; dynamic height 971.290.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.99	34.26	0	10.99	34.26	26.21
25	15.19	35.90	25	15.19	35.90	26.64
50	15.07	35.90	50	15.07	35.89	26.65
74	15.04	35.89	75	15.05	35.89	26.66
99	14.38	35.77	100	14.35	35.76	26.72
149	13.39	35.58	150	13.35	35.37	26.78
199	12.80	35.50	200	12.80	35.50	26.88
298	11.85	35.48	300	11.80	35.47	27.91
396	9.68	35.22	400	9.60	35.21	27.20
588	5.83	34.89	600	5.75	34.89	27.52
777	4.72	34.94	800	4.90	34.93	27.65
973	4.30	34.93	1,000	4.25	34.92	27.72
1,166	3.88	34.95				

Station 7095; 1 June; 43°45.5′ N., 47°27′ W.; depth 4,006 m. dynamic height 971.048.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.88	33.82	0	7.88	33.82	26.38
25	7.68	33.83	25	7.68	33.83	26.41
51	7.03	34.22	50	7.05	34.21	26.81
76	7.17	34.47	75	7.20	34.46	26.99
102	7.02	34.54	100	7.05	34.53	27.06
152	6.95	34.75	150	6.95	34.74	27.24
202	5.98	34.65	200	5.80	34.65	27.32
304	5.52	34.84	300	5.55	34.82	27.49
405	4.75	34.85	400	4.80	34.85	27.60
602	4.69	34.95	600	4.70	34.94	27.68
796	4.23	34.94	800	4.20	34.93	27.73
995	3.99	34.93	1,000	4.00	34.92	27.75
1,496	3.65	34.905				

Station 7096; 1 June; 43°56.5′ N., 48°06′ W.; depth 3,749 m. dynamic height 970.999.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.64	33.81	0	7.64	33.81	26.41
25	7.64	33.92	25	7.64	33.92	26.50
50	6.52	34.32	50	6.52	34.32	26.96
75	7.03	34.57	75	7.03	34.57	27.09
100	8.29	34.94	100	8.29	34.94	27.20
150	6.90	34.82	150	6.90	34.82	27.31
200	5.59	34.68	200	5.59	34.68	27.37
300	4.30	34.70	300	4.30	34.70	27.53
384	5.14	34.93	400	5.15	34.94	27.64
577	4.55	34.97	600	4.50	34.96	27.72
771	4.04	34.945	800	3.95	34.93	27.75
966	3.59	34.905	1,000	3.55	34.90	27.77
1,458	3.39	34.89				

Station 7097; 1 June; 44°03′ N., 48°33′ W.; depth 3,109 m. dynamic height 970.943.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.97	33.37	0	2.97	33.37	26.60
25	2.49	33.54	25	2.49	33.54	26.78
50	2.20	33.87	50	2.20	33.87	27.06
75	2.77	34.13	75	2.77	34.13	27.23
100	2.51	34.23	100	2.51	34.23	27.33
150	2.52	34.40	150	2.52	34.40	27.46
200	3.23	34.59	200	3.23	34.59	27.54
300	4.33	34.86	300	4.33	34.86	27.66
404	4.17	34.88	400	4.20	34.87	27.69
602	3.97	34.90	600	4.00	34.89	27.72
798	3.65	34.885	800	3.65	34.88	27.74
997	3.62	34.91	1,000	3.60	34.90	27.77
1,491	3.39	34.90				

Station 7098; 1 June; 44°06′ N., 48°50′ W.; depth 1,600 m.; dynamic height 971.030.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.02	32.99	0	2.02	32.99	26.38
25	1.07	33.04	25	1.07	33.04	26.49
50	−0.56	33.17	50	−0.56	33.17	26.66
75	−0.95	33.33	75	−0.95	33.33	26.81
100	−0.03	33.60	100	−0.03	33.60	26.99
150	1.25	33.90	150	1.25	33.90	27.16
199	1.95	34.22	200	1.95	34.22	27.38
299	2.51	34.48	300	2.55	34.17	27.53
410	3.14	34.68	400	3.10	34.66	27.63
609	3.53	34.84	600	3.55	34.82	27.71
803	3.69	34.87	800	3.70	34.86	27.73
1,002	3.65	34.87	1,000	3.65	34.86	27.73
1,495	3.55	34.88				

Station 7099; 1 June; 44°07′ N., 18°55′ W.; depth 903 m.; dynamic height 971.070.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.89	32.97	0	1.89	32.97	26.37
25	0.90	32.97	25	0.90	32.97	26.43
50	−0.77	33.15	50	−0.77	33.15	26.66
74	−0.66	33.40	75	−0.65	33.39	26.86
99	−0.26	33.51	100	−0.25	33.50	26.93
148	0.23	33.66	150	0.25	33.50	26.93
197	0.92	33.85	200	0.95	33.86	27.15
246	2.29	34.31	300	2.35	34.31	27.41
400	3.12	34.68	400	3.10	31.67	27.64
598	3.59	34.80	(600)	3.60	34.80	27.69

Station 7100; 1 June; 44°07′ N., 48°55′ W.; depth 192 m ; dynamic height 971.108.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.15	32.98	0	1.15	32.98	26.44
24	0.49	33.04	25	0.45	33.05	26.54
49	−0.84	33.22	50	−0.85	33.22	26.72
73	−0.86	33.32	75	−0.85	33.32	26.80
97	−0.76	33.35	100	−0.75	33.34	26.82
146	−0.68	33.39	(150)	−0.65	33.38	26.85

Station 7101; 1 June; 44°10′ N., 49°11′ W.; depth 89 m.; dynamic height 971.120.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.52	33.03	0	1.52	33.03	26.45
25	0.59	33.03	25	0.59	33.03	26.51
49	−0.09	33.12	50	−0.10	33.12	26.61
74	−0.44	33.22	75	−0.45	33.22	26.71

Station 7102; 1 June; 44°11.5′ N., 49°21′ W.; depth 48 m.; dynamic height 971.114.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.78	33.16	0	2.78	33.16	26.46
26	1.24	33.185	25	1.35	33.18	26.59
42	0.79	33.22	50	0.60	33.24	26.68

Station 7103; 1 June; 44°58′ N., 49°24′ W.; depth 71 m.; dynamic height 971.124.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.37	32.90	0	1.37	32.90	26.34
26	0.49	32.915	25	0.50	32.90	26.40
52	−1.01	33.15	50	−0.95	33.12	26.65

Station 7104; 1 June; 44°57′ N., 49°14′ W.; depth 119 m.; dynamic height 971.132.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.48	32.89	0	1.48	32.89	26.34
25	1.00	32.90	25	1.00	32.90	26.37
51	−0.32	33.02	50	−0.25	33.01	26.54
76	−0.82	33.05	75	−0.80	33.05	26.58

Station 7105; 2 June; 44°52.5′ N., 48°58′ W.; depth 694 m.; dynamic height 971.088.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.24	32.92	0	1.24	32.92	26.38
25	0.74	32.94	25	0.74	32.94	26.43
50	1.04	33.12	50	−1.04	33.12	26.64
76	−1.07	33.28	75	−1.05	33.27	26.77
104	−0.85	33.35	100	−0.85	33.33	26.84
151	−0.44	33.50	150	−0.45	33.49	26.93
202	0.17	33.66	200	−0.20	33.65	27.05
303	2.27	34.40	300	2.20	34.38	27.48
388	2.81	34.60	400	2.85	34.60	27.60
579	3.33	34.75	(600)	3.35	34.75	27.67

Station 7106; 2 June; 44°51′ N., 48°47′ W.; depth 2,012 m.; dynamic height 970.981.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.00	33.10	0	2.00	33.10	26.46
24	1.49	33.22	25	1.45	33.22	26.61
48	0.31	33.39	50	0.35	33.41	26.83
72	0.71	33.73	75	0.80	33.75	27.07
97	1.86	33.97	100	1.90	33.98	27.18
146	1.93	34.22	150	2.00	34.23	27.37
194	2.49	34.43	200	2.60	34.45	27.50
291	3.93	34.74	300	3.90	34.73	27.60
400	3.50	34.76	400	3.50	34.75	27.66
595	3.75	34.83	600	3.75	34.82	27.69
788	3.69	34.88	800	3.70	34.88	27.74
981	3.62	34.895	1,000	3.60	34.89	27.76
1,472	3.45	34.90				

Station 7107; 2 June; 44°50.5′ N., 48°31′ W.; depth 2,431 m.; dynamic height 970.951.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.97	33.38	0	2.97	33.38	26.61
25	2.76	33.40	25	2.76	33.40	26.64
50	3.68	34.05	50	3.68	34.05	27.07
76	1.98	34.06	75	2.00	34.05	27.23
101	1.82	34.15	100	1.80	34.14	27.32
151	2.10	34.32	150	2.10	34.30	27.42
202	2.98	34.52	200	2.95	34.50	27.51
303	3.88	34.77	300	3.85	34.76	27.64
402	4.01	34.85	400	4.00	34.84	27.68
599	3.82	34.88	600	3.85	34.88	27.72
794	3.81	34.905	800	3.80	34.90	27.75
992	3.56	34.895	1,000	3.55	34.89	27.76
1,489	3.41	34.895				

Station 7108; 2 June; 44°45.5′ N., 45°57′ W.; depth 3,109 m.; dynamic height 970.957.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.37	33.44	0	1.37	33.44	26.55
25	0.74	33.30	25	0.74	33.30	26.70
50	0.35	33.58	50	0.35	33.58	26.96
75	1.71	33.96	75	1.71	33.96	27.18
99	3.64	34.32	100	3.70	34.33	27.30
149	5.46	34.73	150	5.45	34.73	27.42
199	5.37	34.84	200	5.30	34.84	27.53
298	3.82	34.78	300	3.80	34.77	27.65
375	4.23	34.87	400	4.25	34.87	27.68
559	4.12	34.89	600	4.05	34.89	27.71
739	3.84	34.89	800	3.80	34.89	27.74
935	3.76	34.905	1,000	3.75	34.90	27.75
1,444	2.97	34.90				

Station 7109; 2 June; 44°42′ N., 47°11′ W.; depth 3,749 m.; dynamic height 971.030.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.72	34.19	0	8.72	34.19	26.54
25	9.39	34.59	25	9.39	34.59	26.75
50	9.38	34.80	50	9.38	34.80	26.91
75	9.53	34.92	75	9.53	34.92	26.99
99	10.16	35.11	100	10.15	35.10	27.02
149	8.99	35.07	150	8.95	35.06	27.20
199	7.48	34.94	200	7.45	34.94	27.32
298	5.38	34.80	300	5.40	34.80	27.49
368	5.57	34.94	400	5.30	34.93	27.60
552	4.27	34.895	600	4.20	34.89	27.70
737	3.98	34.895	800	3.90	34.90	27.74
926	3.71	34.91	1,000	3.65	34.91	27.77
1,405	3.44	34.89				

Station 7110; 2 June; 44°33′ N., 46°37′ W.; depth 3,832 m.; dynamic height 971.031.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.02	33.83	0	8.02	33.83	26.36
25	5.74	33.79	25	5.75	33.79	26.65
52	6.11	34.12	50	6.10	34.11	26.86
77	4.52	34.09	75	4.74	34.09	27.00
104	4.16	34.18	100	4.20	34.15	27.11
154	5.83	34.58	150	5.75	34.55	27.25
206	5.26	34.60	200	5.30	34.60	27.34
310	5.03	34.78	300	5.05	34.76	27.50
411	5.37	34.98	400	5.40	34.96	27.62
617	4.38	34.93	600	4.45	34.93	27.70
823	4.34	34.97	800	4.40	34.96	27.73
1,030	3.70	34.87	1,000	3.75	34.88	27.73
1,552	3.47	34.90				

Station 7111; 2 June; 44°26′ N., 45°54′ W.; depth 3,834 m.; dynamic height 971.139.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.99	34.36	0	10.99	34.36	26.29
25	10.63	34.36	25	10.55	34.36	26.38
47	10.19	34.70	50	10.30	34.73	26.70
70	12.82	35.43	75	12.85	35.45	26.79
94	12.87	35.51	100	12.70	35.46	26.83
141	11.06	35.19	150	10.75	35.17	26.98
187	9.77	35.12	200	9.55	35.09	27.11
281	8.22	34.99	300	7.65	34.93	27.29
337	6.50	34.85	400	5.95	34.89	27.49
503	5.33	34.95	600	4.90	34.93	27.65
669	4.59	34.92	800	4.05	34.90	27.72
841	3.95	34.90	1,000	3.70	34.89	27.75
1,294	3.51	34.87				

Station 7112; 3 June; 44°19′ N.; 45°18′ W.; depth 1,181 m.; dynamic height 971.043.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.45	33.76	0	7.45	33.76	26.40
24	7.53	33.96	25	7.55	33.97	26.55
48	9.46	34.55	50	9.65	34.60	26.72
73	12.01	35.52	75	12.05	35.53	27.01
97	12.15	35.61	100	12.15	35.61	27.05
145	10.99	35.42	150	10.80	35.35	27.10
193	7.36	34.86	200	7.00	34.84	27.31
290	4.91	34.73	300	4.95	34.74	27.49
400	5.20	34.94	400	5.20	34.93	27.61
596	4.56	34.96	600	4.55	34.96	27.72
789	4.38	34.97	800	4.35	34.97	27.75
984	3.97	34.945	1,000	3.95	34.94	27.76
1,463	3.57	34.92				

Station 7113; 3 June; 44°50′ N., 45°15′ W.; depth 4,024 m.; dynamic height 970.996.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.74	33.96	0	8.74	33.96	26.37
25	8.34	33.92	25	8.34	33.92	26.40
49	5.32	34.04	50	5.25	34.04	26.90
74	4.54	34.14	75	4.55	34.13	27.05
98	4.81	34.36	100	4.80	34.37	27.22
147	4.80	34.50	150	4.75	34.50	27.33
196	4.10	34.52	200	4.10	34.52	27.42
294	4.78	34.81	300	4.85	34.82	27.57
400	5.00	34.97	400	5.00	34.96	27.67
598	4.34	34.95	600	4.35	34.93	27.71
794	4.22	34.97	800	4.20	34.96	27.76
996	3.98	34.95	1,000	4.00	34.94	27.76
1,498	3.52	34.92				

Station 7114; 3 June; 45°18′ N., 45°17′ W.; depth 4,024 m.; dynamic height 971.004.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.44	33.99	0	8.44	33.99	26.43
25	8.34	33.98	25	8.34	33.98	26.45
51	6.60	34.10	50	6.65	34.09	26.77
76	4.99	34.26	75	5.00	34.25	27.10
102	5.94	34.53	100	5.90	34.51	27.20
152	5.44	34.60	150	5.45	34.59	27.31
204	5.01	34.645	200	5.00	34.64	27.41
306	4.36	34.75	300	4.40	34.73	27.54
410	4.46	34.88	400	4.50	34.87	27.65
610	4.05	34.89	600	4.10	34.88	27.70
806	3.89	34.92	800	3.90	34.91	27.75
1,007	3.90	34.945	1,000	3.90	34.94	27.77
1,505	3.53	34.92				

Station 7115; 3 June; 45°18.5′ N.; 45°56′ W.; depth 3,475 m.; dynamic height 970.967.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.92	33.52	0	5.92	33.52	26.41
25	3.37	33.53	25	3.37	33.53	26.70
50	3.96	34.10	50	3.96	34.10	27.10
75	1.94	33.99	75	1.94	33.99	27.18
101	4.44	34.41	100	4.40	34.41	27.30
151	6.20	34.80	150	6.15	34.80	27.40
202	5.03	34.74	200	5.05	34.74	27.48
303	5.52	34.97	300	5.50	34.96	27.60
406	4.56	34.90	400	4.65	34.90	27.66
605	3.88	34.88	600	3.90	34.88	27.72
80[illegible]	3.69	34.88	800	3.70	34.88	27.74
1,002	3.83	34.94	1,000	3.85	34.94	27.77
1,502	3.49	34.92				

Station 7116; 3 June; 45°20′ N., 46°43′ W.; depth 3,164 m.; dynamic height 970.970.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.52	33.82	0	7.52	33.82	26.43
25	6.14	33.86	25	6.14	33.86	26.66
50	4.96	33.96	50	4.96	33.96	26.88
74	4.46	34.21	75	4.45	34.20	27.12
99	4.36	34.37	100	4.35	34.37	27.27
149	4.17	34.52	150	4.15	34.52	27.41
198	4.58	34.67	200	4.60	34.68	27.48
297	5.03	34.92	300	5.05	34.92	27.63
400	4.79	34.95	400	4.80	34.94	27.67
596	4.04	34.905	600	4.05	34.90	27.72
789	3.95	34.93	800	3.95	34.92	27.75
987	3.61	34.885	1,000	3.60	34.88	27.75
1,483	3.43	34.92				

Station 7117; 3 June; 45°20.5′ N., 47°21′ W.; depth 2,743 m.; dynamic height 970.967.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.83	33.64	0	5.83	33.64	26.51
25	5.45	33.79	25	5.45	33.79	26.68
50	3.33	33.86	50	3.33	33.86	26.96
76	3.17	34.40	75	3.15	34.30	27.33
101	3.45	34.32	100	3.45	34.39	27.37
151	4.33	34.57	150	4.35	34.57	27.43
201	4.39	34.71	200	4.40	34.70	27.52
302	4.36	34.82	300	4.35	34.82	27.63
393	3.66	34.75	400	3.70	34.75	27.64
586	3.88	34.85	600	3.90	34.84	27.69
777	3.72	34.85	800	3.70	34.84	27.71
969	3.69	34.91	1,000	3.65	34.90	27.76
1,448	3.42	34.89				

Station 7118; 3 June; 45°31.5′ N., 47°46′ W.; depth 1,554 m.; dynamic height 970.920.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.18	33.44	0	4.18	33.44	26.55
25	4.44	33.70	25	4.44	33.70	26.73
50	3.02	34.14	50	3.02	34.14	27.22
75	3.58	34.46	75	3.58	34.46	27.42
100	4.05	34.59	100	4.05	34.59	27.47
150	4.83	34.79	150	4.83	34.79	27.54
201	4.32	34.78	200	4.35	34.77	27.59
301	3.43	34.74	300	3.45	34.74	27.65
391	3.22	34.76	400	3.25	34.76	27.69
590	3.84	34.88	600	3.85	34.88	27.72
789	3.65	34.89	800	3.65	34.89	27.75
992	3.50	34.89	1,000	3.50	34.88	27.76
1,510	3.43	34.90				

Station 7119; 4 June; 45°40′ N., 48°04′ W.; depth 677 m.; dynamic height 970.997.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.20	33.23	0	2.20	33.23	26.55
25	1.80	33.24	25	1.80	33.24	26.59
50	0.06	33.42	50	0.06	33.42	26.85
75	0.13	33.69	75	0.13	33.69	27.06
100	0.87	33.89	100	0.87	33.89	27.10
150	1.77	34.15	150	1.77	34.14	27.32
199	1.98	34.30	200	2.00	34.30	27.43
299	2.58	34.50	300	2.60	34.50	27.54
386	2.83	34.61	400	2.90	34.61	27.61
592	3.45	34.80	(600)	3.30	34.79	27.71

Station 7120; 4 June; 45°18′ N., 48°14′ W.; depth 162 m.; dynamic height 971.120.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.38	32.88	0	1.38	32.88	26.34
25	1.34	32.88	25	1.34	32.88	26.34
50	0.18	32.91	50	0.18	32.91	26.43
75	−1.31	33.10	75	−1.31	33.10	26.64
100	−1.41	33.15	100	−1.41	33.15	26.68
150	−0.77	33.41	150	−0.77	33.40	26.87

Station 7121; 4 June; 45°52′ N., 48°19′ W.; depth 114 m.; dynamic height 971.119.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.85	32.86	0	1.85	32.86	26.28
25	0.64	32.84	25	0.64	32.84	26.35
50	−0.93	32.92	50	−0.93	32.92	26.49
75	−1.53	33.08	75	−1.53	33.08	26.62
100	−1.42	33.17	100	−1.42	33.17	26.70

Station 7122; 4 June; 46°03′ N., 48°32′ W.; depth 91 m.; dynamic height 971.114.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.63	32.95	0	1.63	32.95	26.37
26	1.53	32.95	25	1.55	32.95	26.38
54	−0.22	33.04	50	0.05	33.02	26.53
80	−0.97	33.19	75	−0.90	33.15	26.68

Station 7123; 4 June; 46°11′ N., 48°44′ W.; depth 77 m.; dynamic height 971.112.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.61	33.04	0	1.61	33.04	26.45
26	1.58	33.02	25	1.60	33.02	26.44
53	0.46	33.08	50	0.65	33.06	26.53
74	−0.70	33.25	(75)	−0.75	33.25	26.74

Station 7124; 4 June; 46°17′ N., 48°58′ W.; depth 64 m.; dynamic height 971.109.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.63	33.07	0	1.63	33.07	26.47
27	1.59	33.08	25	1.60	33.08	26.49
55	0.43	33.14	50	0.70	33.13	26.58

Station 7125; 4 June; 48°15.5′ N., 48°33′ W.; depth 89 m.; dynamic height 971.115.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.55	32.94	0	1.55	32.94	26.38
26	1.47	32.98	25	1.45	32.97	26.41
53	0.60	33.00	50	0.75	32.99	26.47
79	−0.90	33.19	75	−0.70	33.16	26.67

Station 7126; 4 June; 46°12.5′ N., 48°01′ W.; depth 118 m.; dynamic height 971.110.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.63	32.90	0	1.63	32.91	26.33
25	0.89	32.90	25	0.89	32.90	26.38
50	0.31	33.10	50	0.34	33.10	26.57
76	−0.69	33.27	75	−0.65	33.26	26.75
101	−1.16	33.28	100	−1.15	33.27	26.78

Station 7127; 4 June; 46°11′ N; 47°47′ W.; depth 169 m ; dynamic height 971.112.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.26	32.84	0	1.26	32.84	26.32
25	0.73	32.88	25	0.73	32.87	26.37
50	−1.41	33.06	50	−1.41	33.06	26.61
74	−1.49	33.12	75	−1.50	33.12	26.66
99	−1.25	33.24	100	−1.25	33.25	26.76
149	−0.57	33.44	150	−0.55	33.44	26.89

Station 7128; 4 June; 46°11.5′ N., 47°25′ W.; depth 672 m.; dynamic height 971.012.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.56	33.11	0	1.56	33.11	26.50
24	1.71	33.22	25	1.70	33.23	26.60
43	1.76	33.39	50	1.75	33.42	26.75
65	1.66	33.50	75	1.25	33.56	26.89
87	0.42	33.71	100	0.70	33.80	27.12
130	1.39	33.96	150	1.70	34.05	27.25
173	1.93	34.14	200	2.05	34.23	27.37
260	2.34	34.41	300	2.65	34.51	27.55
407	3.18	34.68	400	3.15	34.66	27.62
609	3.67	34.82	600	3.65	34.81	27.69

Station 7129; 4 June; 46°11′ N., 47°11′ W.; depth 1,317 m.; dynamic height 970.947.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.92	33.25	0	1.92	33.25	26.59
25	2.47	33.50	25	2.47	33.50	26.76
50	4.12	34.03	50	4.12	34.03	27.02
75	3.76	34.14	75	3.76	34.14	27.15
99	2.53	34.26	100	2.50	34.26	27.36
148	2.31	34.41	150	2.30	34.42	27.51
198	2.70	34.55	200	2.70	34.55	27.57
297	3.01	34.68	300	3.05	34.67	27.64
396	3.24	34.75	400	3.25	34.75	27.68
596	3.49	34.80	600	3.50	34.80	27.70
797	3.67	34.86	800	3.70	34.85	27.72
999	3.56	34.87	1,000	3.55	34.87	27.75
1,317	3.47	34.86				

Station 7130; 4 June; 46°09′ N., 46°39′ W.; depth 969 m.; dynamic height 970.909.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.43	33.58	0	4.43	33.58	26.64
25	4.04	34.00	25	4.04	34.00	27.01
50	2.93	34.28	50	2.93	34.28	27.33
75	3.62	34.53	75	3.62	34.53	27.46
100	3.94	34.60	100	3.94	34.60	27.49
150	3.46	34.63	150	3.46	34.63	27.57
201	3.39	34.68	200	3.40	34.68	27.61
301	4.09	34.83	300	4.10	34.82	27.66
395	4.06	34.87	400	4.05	34.87	27.70
594	3.88	34.90	600	3.85	34.89	27.73
793	3.75	34.90	800	3.75	34.88	27.73
901	3.76	34.89				

Station 7131; 5 June; 46°05′ N., 45 15′ W.; depth 1,328 m.; dynamic height 971.010.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.09	34.27	0	9.09	34.27	26.51
25	9.07	34.27	25	9.07	34.27	26.55
50	8.14	34.47	50	8.14	34.47	26.85
75	7.38	34.66	75	7.38	34.66	27.11
100	8.50	34.91	100	8.50	34.91	27.15
149	6.96	34.75	150	6.95	34.75	27.25
199	6.66	34.85	200	6.65	34.84	27.36
299	4.90	34.77	300	4.90	34.76	27.52
397	4.26	34.81	400	4.30	34.81	27.63
600	4.41	34.94	600	4.40	34.94	27.71
807	3.57	34.88	800	3.60	34.87	27.75
1,011	3.62	34.90	1,000	3.60	34.89	27.76
1,217	3.52	34.89				

Station 7132; 5 June; 46°05′ N., 45°15′ W.; depth 2,347 m.; dynamie height 971.083.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.35	34.29	0	9.35	34.29	26.52
25	10.75	34.74	25	10.75	34.74	26.64
51	10.60	34.89	50	10.60	34.88	26.77
76	10.97	35.04	75	10.95	35.04	26.83
102	10.30	34.99	100	10.35	34.99	26.90
152	9.74	35.12	150	9.75	35.11	27.10
203	7.59	34.80	200	7.75	34.80	27.17
305	6.83	34.94	300	6.90	34.94	27.40
402	4.85	34.82	400	4.90	34.81	27.56
605	4.95	35.00	600	4.95	35.00	27.70
806	4.48	34.99	800	4.50	34.98	27.73
1,003	4.03	34.94	1,000	4.05	34.95	27.76
1,484	3.93	34.92				

Station 7133; 5 June; 46°02′ N.; 44°40′ W.; depth 3,749 m.; dynamic height 971.094.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.87	34.34	0	9.87	34.34	26.47
25	9.99	34.43	25	9.99	34.43	26.52
49	10.62	34.84	50	10.65	34.85	26.74
74	11.42	35.17	75	11.45	35.17	26.85
98	11.58	35.29	100	11.55	35.28	26.91
147	8.71	34.87	150	8.45	34.84	27.10
197	5.66	34.41	200	5.65	34.41	27.15
295	5.50	34.67	300	5.55	34.68	27.37
405	6.04	34.98	400	6.05	34.96	27.54
608	4.95	35.00	600	5.00	35.00	27.70
810	4.33	34.97	800	4.35	34.96	27.74
1,000	4.00	34.95	1,000	4.00	34.94	27.76
	3.53	34.92				

Station 7134; 5 June; 46°23′ N.; 44°48′ W.; depth 2,433 m.; dynamic height 970.940.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.39	33.88	0	6.39	33.88	26.63
25	5.19	33.96	25	5.19	33.96	26.85
50	4.65	34.17	50	4.65	34.17	27.08
75	4.14	34.26	75	4.14	34.26	27.20
100	3.21	34.27	100	3.21	34.27	27.31
150	3.00	34.42	150	3.00	34.42	27.45
200	3.18	34.60	200	3.18	34.60	27.57
300	4.66	34.91	300	4.66	34.91	27.65
398	3.47	34.79	400	3.50	34.78	27.68
596	3.65	34.84	600	3.65	34.83	27.70
795	3.69	34.86	800	3.70	34.85	27.72
997	3.61	34.86	1,000	3.60	34.85	27.73
1,506	3.50	34.89				

Station 7135; 5 June; 16 29′ N.; 44 48′ W.; depth 690 m.; dynamic height 970.908.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.94	34.28	0	5.94	34.28	27.01
25	5.43	34.28	25	5.43	34.28	27.07
50	5.03	34.34	50	5.03	34.34	27.16
75	4.14	34.44	75	4.14	34.44	27.34
100	3.40	34.48	100	3.40	34.48	27.45
150	3.41	34.62	150	3.41	34.62	27.57
199	3.29	34.71	200	3.35	34.70	27.63
299	3.53	34.80	300	3.55	34.79	27.68
403	3.58	34.82	400	3.60	34.81	27.70
607	3.68	34.85	600	3.70	34.84	27.71

Station 7136; 5 June; 46°35′ N., 44 48′ W.; depth 227 m.; dynamic height 970.884.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.77	34.21	0	5.77	34.21	26.97
24	4.84	34.30	25	4.80	34.30	27.16
48	3.25	34.42	50	3.20	34.43	27.43
72	2.86	34.50	75	2.85	34.50	27.52
96	2.69	34.53	100	2.65	34.52	27.56
144	2.54	34.58	150	2.55	34.59	27.62
191	3.50	34.75	(200)	3.70	34.78	27.66

Station 7137; 5 June; 46°10′ N., 44 49′ W.; depth 172 m.; dynamic height 970.905.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.92	34.19	0	5.92	34.19	26.94
25	5.17	34.22	25	5.17	34.22	27.06
50	4.62	34.26	50	4.62	34.26	27.16
75	2.89	34.38	75	2.89	34.38	27.42
99	2.92	34.49	100	2.95	34.48	27.49
149	3.12	34.60	150	3.15	34.60	27.57

Station 7138; 5 June; 46 50′ N., 44°54′ W.; depth 144 m.; dynamic height 970.904.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.74	34.23	0	5.74	34.23	26.99
25	5.24	34.22	25	5.24	34.22	27.05
49	3.53	34.31	50	3.50	34.30	27.30
74	2.98	34.34	75	2.95	34.34	27.38
98	2.79	34.42	100	2.80	34.42	27.46
128	2.81	34.43				

Station 7139; 5 June; 46°50′ N., 45°04′ W.; depth 183 m.; dynamic height 970.905.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.83	34.21	0	5.83	34.21	26.89
25	5.18	34.23	25	5.18	34.23	27.06
50	3.22	34.30	50	3.22	34.30	27.33
75	2.79	34.36	75	2.79	34.36	27.41
99	2.79	34.42	100	2.80	34.42	27.46
149	2.93	34.54	(150)	2.95	34.54	27.54

Station 7140; 5 June; 46°50′ N., 45 19′ W.; depth 222 m.; dynamic height 970.912.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.54	34.13	0	5.54	34.13	26.94
25	4.93	34.15	25	4.93	34.15	27.02
49	3.44	34.25	50	3.45	34.24	27.25
74	2.85	34.26	75	2.85	34.26	27.33
98	2.70	34.35	100	2.70	34.35	27.41
148	3.03	34.53	150	3.10	34.53	27.52
197	3.60	34.695	(200)	3.65	34.70	27.60

Station 7141; 5 June; 46°49.5′ N., 45°48′ W.; depth 295 m.; dynamic height 970.916.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	5.54	34.19	0	5.54	34.19	26.99
25	5.14	34.18	25	5.14	34.18	27.02
50	4.96	34.20	50	4.96	34.20	27.07
75	3.78	34.38	75	3.78	34.38	27.33
100	3.52	34.50	100	3.52	34.80	27.45
149	3.76	34.64	150	3.75	34.63	27.53
199	3.62	34.68	200	3.60	34.68	27.59
249	3.93	34.75				

Station 7142; 6 June; 46°49.5′ N., 46°06′ W.; depth 324 m.; dynamic height 970.923.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	4.48	34.00	0	5.48	34.00	26.84
24	4.97	34.14	25	4.95	34.14	27.02
48	4.76	34.17	50	4.75	34.16	27.06
73	3.71	34.245	75	3.65	34.25	27.25
97	3.11	34.365	100	3.10	34.37	27.40
145	3.28	34.53	150	3.30	34.54	27.51
193	3.34	34.64	200	3.35	34.64	27.58
290	3.80	34.82	(300)	3.85	34.84	27.69

Station 7143; 6 June; 46°49.5′ N.; 46°31′ W.; depth 667 m. dynamic height 970.912.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	4.74	33.89	0	4.74	33.89	26.83
25	4.27	33.94	25	4.27	33.94	26.97
50	2.28	34.12	50	2.28	34.12	27.27
75	2.25	34.31	75	2.25	34.31	27.42
100	3.44	34.56	100	3.44	34.56	27.51
150	4.79	34.82	150	4.79	34.82	27.58
200	3.68	34.70	200	3.68	34.70	27.60
300	3.56	34.76	300	3.56	34.76	27.65
379	3.79	34.82	400	3.80	34.82	27.69
576	3.85	34.88	(600)	3.85	34.87	27.72

Station 7144; 6 June; 46°48′ N., 46°52′ W.; depth 1,262 m.; dynamic height 970.931.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	3.05	33.48	0	3.05	33.48	26.69
25	2.19	33.50	25	2.19	33.50	26.78
50	3.94	34.09	50	3.94	34.09	27.09
75	3.06	34.21	75	3.06	34.21	27.26
100	2.81	34.31	100	2.81	34.31	27.37
150	2.52	34.45	150	2.52	34.45	27.50
201	3.08	34.58	200	3.10	34.57	27.56
301	3.13	34.73	300	3.15	34.72	27.67
404	3.23	34.75	400	3.25	34.75	27.68
607	3.65	34.86	600	3.70	34.85	27.72
809	3.59	34.87	800	3.65	34.87	27.74
1,015	3.50	34.885	1,000	3.50	34.88	27.76
1,129	3.43	34.88				

Station 7145; 6 June; 46°48′ N., 47°07′ W.; depth 682 m.; dynamic height 971.005.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.39	33.26	0	2.39	33.26	26.57
25	1.86	33.32	25	1.86	33.32	26.66
50	1.65	33.36	50	1.65	33.36	26.70
75	0.19	33.60	75	0.19	33.60	26.99
100	0.72	33.78	100	0.72	33.78	27.10
150	1.50	34.11	150	1.50	34.11	27.31
200	2.14	34.31	200	2.11	34.31	27.42
300	2.63	34.53	300	2.63	34.53	27.56
403	3.12	34.70	400	3.10	34.68	27.64
605	3.41	34.79	600	3.40	34.78	27.69

Station 7146; 6 June; 46°48′ N., 47°19′ W.; depth 329 m.; dynamic height 971.049.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.18	33.18	0	2.18	33.18	26.52
25	1.41	33.20	25	1.41	33.20	26.60
50	0.83	33.35	50	0.83	33.35	26.74
76	−0.48	33.44	75	−0.45	33.44	26.89
101	0.42	33.72	100	0.35	33.71	27.07
151	1.31	34.03	150	1.30	34.02	27.26
202	2.02	34.26	200	2.00	34.25	27.39
303	2.23	34.36	300	2.25	34.35	27.45

Station 7147; 6 June; 46°48.5′ N., 47°42′ W.; depth 172 m.; dynamic height 971.110.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	1.89	32.83	0	1.89	32.83	26.26
25	1.01	32.87	25	1.01	32.87	26.35
50	−1.41	33.10	50	−1.41	33.10	26.63
75	−1.34	33.19	75	−1.34	33.19	26.71
99	−1.01	33.31	100	−1.00	33.31	26.80
149	0.74	33.82	(150)	0.80	33.82	27.13

Station 7148; 6 June; 46°49′ N., 48°12′ W.; depth 114 m.; dynamic height 971.116.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.19	33.00	0	2.19	33.00	26.37
25	1.83	32.99	25	1.83	32.99	26.39
51	1.47	33.01	50	1.50	33.01	26.44
76	−0.52	33.10	75	−0.50	33.10	26.60
102	−0.81	33.24	100	−0.80	33.23	26.73

Station 7149; 6 June; 46°40.5′ N.; 48°42′ W.; depth 89 m.; dynamic height 971.116.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.29	33.02	0	2.29	33.02	26.39
26	1.59	33.01	25	1.60	33.01	26.44
52	1.22	33.02	50	1.25	33.01	26.46
78	−0.49	33.14	75	−0.10	33.11	26.60

Station 7150; 15 June; 49°58′ N., 48°58′ W.; depth 1,847 m.; dynamic height 970.869

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	4.55	33.86	0	4.55	33.86	26.84
25	3.57	34.08	25	3.57	34.08	27.12
50	3.73	34.30	50	3.73	34.30	27.28
75	3.54	34.44	75	3.54	34.44	27.40
100	2.37	34.48	100	2.34	34.48	27.54
150	3.05	34.68	150	3.05	34.68	27.64
199	3.11	34.74	200	3.10	34.74	27.69
299	3.27	34.80	300	3.25	34.80	27.72
394	3.25	34.81	400	3.25	34.81	27.73
590	3.37	34.85	600	3.40	34.85	27.75
787	3.47	34.86	800	3.45	34.86	27.75
987	3.38	34.87	1,000	3.40	34.87	27.77
1,488	3.11	34.90				
1,801	3.24	34.92				

Station 7151; 16 June; 49°49′ N., 49°32′ W.; depth 1,234 m.; dynamic height 970.923.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.32	33.48	0	4.32	33.48	26.57
24	2.86	33.57	25	2.80	33.57	26.79
48	1.62	33.66	50	1.50	33.66	26.96
72	0.95	34.03	75	1.00	34.04	27.29
96	1.43	34.14	100	1.50	34.16	27.36
144	2.03	34.10	150	2.10	34.42	27.52
193	2.50	34.54	200	2.55	34.57	27.61
289	3.11	34.72	300	3.15	34.73	27.67
390	3.29	34.79	400	3.35	34.79	27.70
585	3.23	34.81	600	3.25	34.81	27.73
780	3.45	34.85	800	3.45	34.85	27.71
984	3.49	34.87	1,000	3.50	34.87	27.76
1,190	3.41	34.90				

Station 7152; 16 June; 49°42′ N., 49°59′ W.; depth 635 m.; dynamic height 970.904.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.93	33.39	0	3.93	33.39	26.53
25	2.64	33.40	25	2.64	33.40	26.66
49	2.26	33.67	50	2.25	33.68	26.92
74	2.03	34.23	75	2.05	34.24	27.38
99	2.13	34.38	100	2.15	34.39	27.49
148	2.59	34.52	150	2.60	34.53	27.56
197	2.73	34.60	200	2.75	34.61	27.62
296	3.36	34.75	300	3.35	34.76	27.68
393	3.53	34.82	400	3.55	34.82	27.71
592	3.46	34.84	(600)	3.45	34.84	27.73

Station 7153; 16 June; 49°31′ N., 50°31′ W.; depth 336 m.; dynamic height 970.960.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.15	32.81	0	3.15	32.81	26.16
24	1.79	33.04	25	1.75	33.05	26.46
47	0.86	33.17	50	0.60	33.19	26.61
71	−1.05	33.34	75	−1.05	33.37	26.85
94	−0.84	33.55	100	−0.70	33.61	27.04
141	0.56	33.92	150	0.90	33.99	27.26
189	1.84	34.26	200	2.05	34.34	27.46
283	3.31	34.79	(300)	3.55	34.85	27.73

Station 7154; 16 June; 49°20′ N., 51°02′ W.; depth 331 m.; dynamic height 971.049.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.04	32.86	0	3.04	32.86	26.20
26	1.65	32.86	25	1.65	32.86	26.30
51	−0.40	33.00	50	−0.25	32.99	26.52
77	−1.41	33.11	75	−1.40	33.10	26.64
103	−1.33	33.18	100	−1.35	33.17	26.70
153	−1.03	33.38	150	−1.05	33.36	26.84
205	0.35	33.76	200	0.15	33.73	27.09
308	2.16	34.34	300	2.05	34.31	27.44

Station 7155; 16 June; 49°12′ N.; 51°33′ W.; depth 334 m.; dynamic height 971.015.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.34	32.87	0	3.34	32.87	26.18
25	2.04	32.87	25	2.04	32.87	26.29
51	0.58	33.06	50	0.65	33.06	26.53
76	0.03	33.18	75	0.05	33.17	26.65
102	−0.99	33.24	100	−0.95	33.23	26.74
151	0.05	33.67	150	0.00	33.66	27.05
202	1.40	34.00	200	1.35	33.99	27.23
304	2.93	34.64	300	2.90	34.62	27.62

Station 7156 16 June; 49°07′ N., 51°52′ W.; depth 295 m.; dynamic height 971.082.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.22	32.18	0	3.22	32.18	25.64
25	1.51	32.52	25	1.51	32.52	26.04
49	−1.49	32.97	50	−1.50	32.98	26.55
74	−1.68	33.07	75	−1.70	33.07	26.63
99	−1.71	33.10	100	−1.70	33.10	26.65
148	−1.57	33.17	150	−1.55	33.17	26.71
197	−0.98	33.15	200	−0.90	33.43	26.90
271	1.40	34.05	(300)	2.15	34.20	27.31

Station 7157; 16 June; 49°01.5′ N., 52°05′ W.; depth 295 m.; dynamic height 971.076.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.21	32.25	0	3.21	32.25	25.70
25	1.21	32.72	25	1.21	32.72	26.22
50	−1.39	32.97	50	−1.39	32.97	26.51
75	−1.67	33.06	75	−1.67	33.06	26.62
100	−1.69	33.11	100	−1.69	33.11	26.66
151	−1.61	33.15	150	−1.60	33.15	26.69
201	−0.92	33.17	200	−0.95	33.16	26.93
276	1.53	34.06				

Station 7158; 16 June; 48°55′ N., 52°20′ W.; depth 357 m.; dynamic height 971.081.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.60	31.94	0	2.60	31.94	25.50
25	1.46	32.58	25	1.46	32.58	26.09
50	−0.82	32.86	50	−0.82	32.86	26.43
75	−1.49	33.04	75	−1.49	33.04	26.60
100	−1.60	33.10	100	−1.60	33.10	26.65
150	−1.59	33.16	150	−1.59	33.16	26.70
200	−1.21	33.40	200	−1.21	33.40	26.89
300	2.17	34.29	300	2.17	34.29	27.41

Station 7159; 16 June; 48°49.5′ N., 52°38′ W.; depth 224 m.; dynamic height 971.104.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.47	31.28	0	3.47	31.28	24.90
25	0.04	32.71	25	0.04	32.71	26.28
50	−1.11	32.92	50	−1.11	32.92	26.49
76	−1.60	33.02	75	−1.60	33.02	26.59
101	−1.69	33.06	100	−1.70	33.06	26.62
152	−1.70	33.13	150	−1.70	33.13	26.68
202	−1.33	33.27	200	−1.35	33.26	26.77

Station 7160; 16 June; 48°45.5′ N., 52°47′ W.; depth 146 m.; dynamic height 971.112.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.68	31.59	0	3.68	31.59	25.13
25	1.87	32.51	25	1.87	32.51	26.01
50	−1.30	32.84	50	−1.30	32.84	26.43
75	−1.48	33.00	75	−1.48	33.00	26.57
99	−1.57	33.04	100	−1.60	33.05	26.61
124	−0.61	33.08				

Station 7161; 17 June; 48°44′ N., 52°57′ W.; depth 93 m.; dynamic height 971.135.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.67	31.00	0	3.67	31.00	24.66
25	0.68	32.16	25	0.68	32.16	25.82
51	−0.53	32.51	50	−0.50	32.54	26.17
76	−1.17	32.82	75	−1.15	32.82	26.41

Station 7162; 17 June; 48°37.5′ N., 52°17′ W.; depth 172 m.; dynamic height 971.123.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	3.82	31.14	0	3.82	31.14	24.76
25	1.26	32.42	25	1.26	32.42	25.98
49	−1.11	32.70	50	−1.10	32.71	26.32
74	−1.21	32.82	75	−1.20	32.82	26.42
99	−1.61	33.04	100	−1.60	33.04	26.60
148	−1.60	33.15	(150)	−1.60	33.16	26.70

Station 7163; 17 June; 48°33.5′ N., 52°36′ W.; depth 265 m; dynamic height 971.111.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	3.25	32.06	0	3.25	32.06	25.54
25	0.98	32.48	25	0.98	32.48	26.05
50	−1.10	32.84	50	−1.10	32.84	26.43
75	−1.34	32.93	75	−1.34	32.93	26.51
100	−1.62	33.03	100	−1.62	33.03	26.59
150	−1.65	33.07	150	−1.65	33.07	26.63
			(200)	−1.60	33.15	26.69

Station 7164; 17 June; 48°19.5′ N., 52°05′ W.; depth 174 m.; dynamic height 971.099.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.86	32.69	0	2.86	32.69	26.07
25	1.75	32.75	25	1.75	32.75	26.22
49	1.09	32.79	50	1.05	32.80	26.31
74	−1.07	33.00	75	−1.10	33.00	26.56
98	−1.47	33.06	100	−1.50	33.06	26.61
147	−1.51	33.14	(150)	−1.50	33.15	26.68

Station 7165; 17 June; 48°13′ N., 51°50′ W.; depth 181 m.; dynamic height 970.091.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.60	32.74	0	2.60	32.71	26.14
25	1.38	32.73	25	1.38	32.73	26.22
50	−0.06	32.85	50	−0.06	32.85	26.40
75	−1.20	33.04	75	−1.20	33.04	26.59
100	−1.34	33.06	100	−1.35	33.06	26.61
151	−1.28	33.25	150	−1.25	33.25	26.76

Station 7166; 17 June; 48°05′ N., 51°29′ W.; depth 174 m.; dynamic height 971.090.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.78	32.80	0	2.78	32.80	26.18
25	1.60	32.83	25	1.60	32.83	26.29
51	0.43	32.86	50	0.45	32.86	26.38
76	−0.89	32.98	75	−0.85	32.97	26.52
101	−1.36	33.11	100	−1.35	33.10	26.64
142	−1.20	33.23	(150)	−1.15	33.25	26.76

Station 7167; 17 June; 47°56′ N., 51°11′ W.; depth 159 m.; dynamic height 971.086.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.48	32.80	0	2.48	32.80	26.20
25	1.67	32.80	25	1.67	32.80	26.26
50	1.37	32.83	50	1.37	32.83	26.30
74	−0.99	33.02	75	−1.00	33.02	26.57
99	−1.16	33.14	100	−1.15	33.15	26.68
139	−1.13	33.25	(150)	−1.00	33.27	26.85

Station 7168; 17 June; 47°47.5′ N., 50°56′ W.; depth 128 m.; dynamic height 971.079.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.79	32.90	0	2.79	32.90	26.25
25	1.48	32.92	25	1.48	32.92	26.36
50	0.55	32.95	50	0.55	32.95	26.44
76	−0.76	33.08	75	−0.75	33.07	26.60
101	−1.17	33.12	100	−1.15	33.12	26.66

Station 7169; 17 June; 47°39′ N., 50°40′ W.; depth 110 m.; dynamic height 971.079.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.61	32.86	0	2.61	32.86	26.23
25	2.30	32.87	25	2.30	32.87	26.27
50	1.28	32.89	50	1.28	32.89	26.35
75	−0.64	33.13	75	−0.64	33.13	26.64
100	−1.18	33.22	100	−1.18	33.32	26.82

Station 7170; 17 June; 47°31.5′ N., 50°21′ W.; depth 146 m.; dynamic height 971.083.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.85	32.89	0	2.85	32.89	26.23
25	2.07	32.96	25	2.07	32.96	26.36
50	1.35	32.97	50	1.35	32.97	26.41
75	0.01	33.12	75	0.01	33.12	26.61
101	−0.24	33.15	100	−0.25	33.15	26.64
141	−0.40	33.16	150	−0.45	33.16	26.66

Station 7171; 17 June; 47°23.5′ N., 50°01′ W.; depth 95 m.; dynamic height 971.082.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.58	32.94	0	2.58	32.94	26.30
26	1.86	32.95	25	1.90	32.95	26.36
53	1.79	32.96	50	1.80	32.96	26.37
79	−0.42	33.18	75	0.05	33.16	26.64

Station 7172; 17 June; 47°45′ N., 49°50′ W.; depth 114 m.; dynamic height 971.083.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	2.39	32.86	0	2.39	32.86	26.25
26	1.86	32.85	25	1.85	32.85	26.28
52	1.19	32.88	50	1.20	32.88	26.35
78	−0.55	33.16	75	−0.40	33.13	26.64
104	−0.73	33.38	100	−0.70	33.35	26.82

Station 7173; 18 June; 47°58′ N., 49°47′ W.; depth 171 m.; dynamic height 971.083.

Observed: Depth, meters	Observed: Temperature, °C.	Observed: Salinity, ‰	Scaled: Depth, meters	Scaled: Temperature, °C.	Scaled: Salinity, ‰	σ_t
0	1.50	32.87	0	1.50	32.87	26.32
25	0.71	32.89	25	0.71	32.89	26.38
50	1.17	33.07	50	1.17	33.07	26.51
76	0.45	33.06	75	0.50	33.06	26.53
101	−1.42	33.14	100	−1.20	33.14	26.67
152	−0.79	33.42	150	−0.80	33.40	26.87

Station 7174; 18 June; 48°14.5′ N., 49°42′ W.; depth 220 m.; dynamic height 971.048.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.52	33.03	0	2.52	33.03	26.38
25	1.78	33.09	25	1.78	33.09	26.47
50	1.70	33.10	50	1.70	33.10	26.49
75	0.27	33.26	75	0.27	33.26	26.71
100	−0.97	33.43	100	−0.97	33.43	26.90
150	0.27	33.78	150	0.27	33.78	27.13
200	1.04	33.985	200	1.04	33.98	27.24

Station 7175; 18 June; 48°32′ N., 49°33′ W.; depth 638 m.; dynamic height 970.997.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.88	33.04	0	2.88	33.04	26.36
25	2.01	33.13	25	2.01	33.13	26.50
50	1.07	33.12	50	1.07	33.12	26.55
74	−0.88	33.47	75	−0.85	33.48	26.93
99	0.16	33.78	100	0.20	33.79	27.14
149	1.23	34.05	150	1.25	34.05	27.29
199	1.96	34.29	200	2.00	34.29	27.42
298	2.96	34.64	300	3.00	34.64	27.62
392	3.65	34.82	400	3.65	34.83	27.70
591	3.65	34.84	(600)	3.65	34.84	27.71

Station 7176; 18 June; 48°38.5′ N., 49°27′ W.; depth 1,024 m.; dynamic height 970.956.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.90	32.88	0	2.90	32.88	26.23
25	1.43	33.09	25	1.43	33.09	26.50
50	−0.01	33.42	50	−0.01	33.42	26.86
75	−0.11	33.67	75	−0.11	33.67	27.06
100	0.26	33.83	100	0.26	33.83	27.17
150	2.02	34.34	150	2.02	34.34	27.46
200	2.57	34.54	200	2.57	34.54	27.58
300	3.17	34.70	300	3.17	34.70	27.65
390	3.63	34.82	400	3.65	34.82	27.70
587	3.61	34.84	600	3.60	34.85	27.73
785	3.59	34.88	800	3.60	34.88	27.75
992	3.51	34.88	(1,000)	3.50	34.88	27.76

Station 7177; 18 June; 49°03′ N., 49°20′ W.; depth 1,628 m.; dynamic height 970.913

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.41	33.37	0	3.41	33.37	26.56
25	3.21	33.39	25	3.21	33.39	26.60
49	0.51	33.76	50	0.55	33.77	27.11
74	1.34	34.11	75	1.35	34.12	27.34
98	1.84	34.28	100	1.85	34.29	27.43
147	2.49	34.48	150	2.50	34.49	27.54
197	2.74	34.58	200	2.75	34.59	27.60
295	3.27	34.75	300	3.25	34.76	27.69
385	3.18	34.805	400	3.20	34.81	27.74
576	3.26	34.82	600	3.30	34.82	27.74
766	3.30	34.83	800	3.30	34.83	27.74
960	3.46	34.84	1,000	3.45	34.845	27.74

Station 7178; 18 June; 49°34.5′ N., 49°17′ W.; depth 1,646 m.; dynamic height 970.926.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.05	33.06	0	3.05	33.06	26.35
25	2.67	33.52	25	2.67	33.52	26.76
50	0.99	33.86	50	0.99	33.86	27.15
76	1.00	34.05	75	1.00	34.05	27.30
101	1.26	34.15	100	1.25	34.14	27.36
151	2.32	34.43	150	2.30	34.42	27.51
202	2.60	34.56	200	2.60	34.55	27.58
303	3.08	34.70	300	3.05	34.70	27.66
390	3.24	34.78	400	3.25	34.78	27.70
591	3.29	34.81	600	3.30	34.81	27.73
795	3.39	34.84	800	3.40	34.84	27.74
1,000	3.46	34.86	1,000	3.45	34.86	27.75
1,524	3.28	34.90				

Station 7179; 18 June; 49°59.5′ N., 49°00′ W.; depth 1,920 m.; dynamic height 970.871.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.00	33.78	0	4.00	33.78	26.84
25	3.76	34.08	25	3.76	34.08	27.10
50	3.29	34.25	50	3.29	34.25	27.28
76	3.53	34.52	75	3.55	34.51	27.46
101	2.87	34.56	100	2.85	34.56	27.57
151	3.11	34.69	150	3.10	34.69	27.65
202	3.27	34.74	200	3.25	34.74	27.67
303	3.33	34.80	300	3.35	34.80	27.71
410	3.32	34.82	400	3.35	34.81	27.72
616	3.50	34.86	600	3.50	34.86	27.75
823	3.37	34.86	800	3.40	34.86	27.76
1,031	3.46	34.87	1,000	3.45	34.87	27.76
1,553	3.43	34.90				
1,859	3.23	34.90				

Station 7180; 19 June; 49°48′ N., 48°22′ W.; depth 2,350 m.; dynamic height 970.878.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.56	34.62	0	6.56	34.62	27.20
25	6.04	34.63	25	6.04	34.63	27.27
50	5.76	34.63	50	5.76	34.63	27.31
76	5.18	34.64	75	5.20	34.64	27.39
101	3.63	34.67	100	3.65	34.67	27.58
151	3.29	34.71	150	3.30	34.71	27.65
201	3.55	34.78	200	3.55	34.77	27.67
302	3.47	34.81	300	3.45	34.81	27.71
389	3.53	34.83	400	3.55	34.83	27.71
585	3.53	34.85	600	3.55	34.85	27.73
781	3.32	34.83	800	3.35	34.83	27.73
984	3.45	34.88	1,000	3.45	34.88	27.76
1,504	3.32	34.90				

Station 7181; 19 June; 49°35′ N., 47°40′ W.; depth 2,743 m.; dynamic height 970.849.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.06	34.30	0	5.06	34.30	27.14
25	5.05	34.36	25	5.05	34.36	27.19
50	5.23	34.56	50	5.23	34.56	27.32
74	4.61	34.59	75	4.60	34.59	27.41
99	3.47	34.67	100	3.40	34.67	27.61
148	3.22	31.75	150	3.20	34.75	27.69
198	3.36	34.78	200	3.40	34.78	27.69
297	3.58	34.86	300	3.55	34.86	27.74
378	3.49	34.86	400	3.50	34.86	27.75
576	3.44	34.87	600	3.45	34.87	27.76
779	3.49	34.90	800	3.50	34.89	27.77
982	3.44	34.90	1,000	3.45	34.90	27.78
1,504	3.32	34.91				

Station 7182; 19 June; 49°15′ N., 47°55′ W.; depth 2,451 m.; dynamic height 970.855.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.42	34.25	0	4.42	34.25	27.17
25	4.44	34.33	25	4.44	34.33	27.22
50	2.56	34.35	50	2.56	34.35	27.43
76	2.62	34.50	75	2.65	34.50	27.54
101	2.62	34.55	100	2.60	34.55	27.58
151	3.03	34.68	150	3.05	34.68	27.64
202	3.30	34.76	200	3.30	34.76	27.69
303	3.33	34.80	300	3.30	34.80	27.72
410	3.31	34.82	400	3.30	34.82	27.74
647	3.46	34.85	600	3.45	34.85	27.74
827	3.44	34.86	800	3.45	34.86	27.76
1,035	3.42	34.88	1,000	3.45	34.88	27.76
1,553	3.29	34.92				

Station 7183; 19 June; 48°52′ N., 48°09′ W.; depth 2,405 m.; dynamic height 970.858.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.47	34.24	0	5.47	34.24	27.07
25	5.17	34.28	25	5.47	34.28	27.10
50	3.28	34.35	50	3.28	34.35	27.36
75	2.93	34.54	75	2.93	34.54	27.54
100	2.93	34.62	100	2.93	34.62	27.61
150	3.17	34.74	150	3.47	34.74	27.67
201	3.19	34.76	200	3.20	34.75	27.69
304	3.29	34.82	300	3.30	34.82	27.74
391	3.26	34.82	400	3.25	34.82	27.74
590	3.28	34.82	600	3.30	34.83	27.74
792	3.53	34.87	800	3.55	34.87	27.75
993	3.49	34.87	1,000	3.50	34.87	27.76

Station 7184; 19 June; 48°29′ N., 48°25′ W.; depth 1,739 m.; dynamic height 970.926.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.95	33.08	0	2.95	33.08	26.38
25	1.90	33.33	25	1.90	33.33	26.66
50	0.29	33.70	50	0.29	33.70	27.06
76	0.51	33.85	75	0.50	33.84	27.16
101	1.28	34.11	100	1.25	34.10	27.33
151	2.40	34.44	150	2.40	34.44	27.51
202	2.98	34.64	200	2.95	34.64	27.62
303	3.22	34.76	300	3.20	34.75	27.69
404	3.29	34.78	400	3.30	34.78	27.70
606	3.27	34.82	600	3.30	34.82	27.74
807	3.44	34.84	800	3.40	34.84	27.74
1,012	3.51	34.87	1,000	3.50	34.87	27.76
1,523	3.39	34.88				

Station 7185; 19 June; 48°44′ N., 48°36′ W.; depth 688 m.; dynamic height 971.013.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.12	33.11	0	3.12	33.14	26.38
25	2.05	33.05	25	2.05	33.05	26.43
50	0.50	33.24	50	0.50	33.24	26.68
76	−1.08	33.44	75	−1.05	33.43	26.90
104	0.04	33.70	100	0.00	33.70	27.08
151	1.23	34.09	150	1.20	34.08	27.31
202	1.89	34.27	200	1.85	34.26	27.41
303	2.74	34.56	300	2.70	34.55	27.57
402	2.85	34.58	400	2.85	34.58	27.58
601	3.57	34.84	600	3.55	34.84	27.72

Station 7186; 19 June; 48°05′ N., 48°40′ W.; depth 316 m.; dynamic height 971.041.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.58	32.96	0	2.58	32.96	26.32
25	1.41	33.04	25	1.41	33.04	26.47
50	−1.52	33.40	50	−1.52	33.40	26.64
76	−1.44	33.19	75	−1.45	33.18	26.71
101	−1.03	33.35	100	−1.05	33.34	26.83
151	0.00	33.78	150	0.00	33.77	27.14
201	0.61	33.98	200	0.60	33.98	27.26
302	2.48	34.46	300	2.40	34.45	27.52

Station 7187; 19 June; 47°51.5′ N., 48°49′ W.; depth 220 m.; dynamic height 971.089.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.04	32.85	0	2.04	32.85	26.28
25	1.87	32.85	25	1.87	32.85	26.28
50	1.82	33.08	50	1.82	33.08	26.47
75	−1.20	33.05	75	−1.20	33.05	26.60
100	−1.57	33.12	100	−1.57	33.12	26.67
150	−1.07	33.29	150	−1.07	33.29	26.78
200	−0.41	33.54	200	−0.41	33.54	26.97

Station 7188; 19 June; 47°39′ N., 48°57′ W.; depth 167 m.; dynamic height 971.083.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.21	32.86	0	2.21	32.86	26.26
25	0.99	32.84	25	0.99	32.84	26.34
50	−0.35	32.96	50	−0.35	32.96	26.49
76	−1.29	33.05	75	−1.25	33.04	26.59
101	−1.52	33.12	100	−1.50	33.11	26.65
151	−0.95	33.37	150	−1.00	33.36	26.84

Station 7189; 20 June; 47°44.5′ N., 48°20′ W.; depth 227 m.; dynamic height 971.076.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.05	32.82	0	2.05	32.82	26.25
25	2.08	32.87	25	2.08	32.87	26.28
50	1.24	32.94	50	1.24	32.94	26.40
75	1.19	32.96	75	1.19	32.96	26.41
100	0.36	33.20	100	0.36	33.20	26.66
149	−0.42	33.53	150	−0.40	33.54	26.97
199	0.77	33.86	(200)	0.80	33.87	27.47

Station 7190; 20 June; 47°46′ N., 48°05′ W.; depth 254 m.; dynamic height 971.064.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.68	32.98	0	2.68	32.98	26.33
25	0.83	32.88	25	0.83	32.88	26.38
51	−1.44	33.08	50	−1.40	33.07	26.62
76	−1.55	33.13	75	−1.55	33.13	26.67
101	−1.45	33.18	100	−1.45	33.18	26.71
152	−0.86	33.43	150	−0.90	33.42	26.90
203	0.41	33.78	200	0.35	33.76	27.11
228	0.79	33.88				

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Station 7191; 20 June; 47°47′ N., 47°17′ W.; depth 293 m.; dynamic height 970.990.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.79	33.14	0	2.79	33.11	26.45
25	2.60	33.13	25	2.60	33.13	26.45
50	1.66	33.13	50	1.66	33.13	26.52
74	0.95	33.59	75	0.95	33.61	26.95
99	0.73	33.86	100	0.70	33.87	27.18
149	1.54	34.18	150	1.55	34.19	27.37
198	2.13	34.39	200	2.15	34.40	27.50
248	2.61	34.52				

Station 7192; 20 June; 47°56′ N., 47°31′ W.; depth 310 m.; dynamic height 970.989.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.64	33.11	0	2.64	33.11	26.43
25	2.67	33.14	25	2.67	33.14	26.45
50	2.23	33.32	50	2.23	33.32	26.63
75	2.95	33.88	75	2.95	33.88	27.01
100	0.56	33.74	100	0.56	33.74	27.08
150	1.56	34.12	150	1.56	34.12	27.32
200	1.99	34.30	200	1.99	34.30	27.43
300	3.33	34.76	300	3.33	34.76	27.68

Station 7193; 20 June; 48°06.5′ N., 47°22′ W.; depth 613 m.; dynamic height 970.914.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	4.51	33.64	0	4.51	33.64	26.68
25	4.66	33.82	25	4.66	33.82	26.80
50	4.13	33.99	50	4.13	33.99	26.99
75	4.14	34.22	75	4.14	34.22	27.18
100	2.80	34.42	100	2.80	34.42	27.46
150	2.92	34.58	150	2.92	34.58	27.58
200	3.10	34.69	200	3.10	34.69	27.65
300	3.46	34.80	300	3.46	34.80	27.70
400	3.59	34.84	400	3.60	34.84	27.72
604	3.55	34.87	600	3.55	34.87	27.75

Station 7194; 20 June; 48°16′ N., 47°12′ W.; depth 1,655 m.; dynamic height 970.884.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.35	33.68	0	5.35	33.68	26.61
25	4.04	34.01	25	4.04	34.01	27.02
50	3.75	34.34	50	3.75	34.34	27.31
76	2.99	34.51	75	3.00	34.51	27.52
101	3.10	34.63	100	3.10	34.63	27.60
151	3.22	34.72	150	3.20	34.72	27.67
202	3.28	34.74	200	3.30	34.74	27.67
303	3.29	34.78	300	3.30	34.78	27.70
402	3.34	34.80	400	3.35	34.80	27.71
605	3.24	34.79	600	3.25	34.79	27.71
810	3.48	34.85	800	3.45	34.85	27.74
1,012	3.50	34.88	1,000	3.50	34.88	27.76
1,514	3.36	34.89				

Station 7195; 20 June; 48°36.5′ N., 47°00′ W.; depth 2,469 m.; dynamic height 970.876.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.00	33.98	0	5.00	33.98	26.89
25	4.90	34.17	25	4.90	34.17	27.05
50	3.34	34.32	50	3.34	34.32	27.33
75	3.02	34.56	75	3.02	34.56	27.55
101	3.04	34.61	100	3.05	34.61	27.59
151	3.14	34.70	150	3.15	34.70	27.65
201	3.22	34.73	200	3.20	34.73	27.67
302	3.32	34.79	300	3.30	34.79	27.71
397	3.37	34.80	400	3.40	34.80	27.71
598	3.26	34.80	600	3.25	34.80	27.72
800	3.47	34.86	800	3.45	34.86	27.75
1,000	3.50	34.86	1,000	3.50	34.86	27.75
1,502	3.38	34.91				

Station 7196; 20 June; 48°58′ N., 46°39′ W.; depth 2,743 m.; dynamic height 970.859.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.44	34.48	0	6.44	34.48	27.11
25	5.88	34.48	25	5.88	34.48	27.18
51	4.43	34.60	50	4.50	34.60	27.43
76	3.59	34.65	75	3.60	34.65	27.57
101	3.30	34.70	100	3.30	34.70	27.64
152	3.34	34.74	150	3.35	34.73	27.65
203	3.40	34.79	200	3.40	34.79	27.70
304	3.39	34.81	300	3.40	34.81	27.72
400	3.44	34.82	400	3.45	34.82	27.72
600	3.67	34.87	600	3.70	34.87	27.71
799	3.55	34.88	800	3.55	34.88	27.75
999	3.50	34.88	1,000	3.50	34.88	27.76
1,502	3.36	34.90				

Station 7197; 20 June; 49°20′ N., 46°19′ W.; depth 3,109 m.; dynamic height 970.849.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.53	34.38	0	6.53	34.38	27.01
25	5.52	34.52	25	5.52	34.52	27.25
50	4.13	34.62	50	4.13	34.62	27.49
75	3.46	34.70	75	3.46	34.70	27.62
99	3.25	34.72	100	3.25	34.72	27.66
149	3.21	34.74	150	3.20	34.74	27.68
199	3.33	34.80	200	3.35	34.80	27.71
298	3.32	34.82	300	3.30	34.82	27.74
397	3.30	34.82	400	3.30	33.83	27.74
595	3.43	34.85	600	3.45	34.85	27.74
794	3.47	34.85	800	3.50	34.85	27.74
993	3.47	34.88	1,000	3.45	34.88	27.76
1,493	3.37	34.90				

Station 7198; 21 June; 49°09′ N., 45°11′ W.; depth 2,674 m.; dynamic height 970.957.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.64	34.15	0	5.64	34.15	26.95
25	5.58	34.21	25	5.58	34.21	27.00
50	3.41	34.48	50	3.41	34.48	27.45
75	3.09	34.65	75	3.09	34.65	27.62
100	3.45	34.76	100	3.45	34.76	27.67
150	3.44	34.76	150	3.44	34.76	27.67
200	3.52	34.81	200	3.52	34.81	27.70
300	3.36	34.81	300	3.36	34.81	27.72
398	3.30	34.81	400	3.30	34.81	27.73
598	3.34	34.84	600	3.35	34.84	27.74
798	3.50	34.87	800	3.50	34.87	27.76
998	3.45	34.88	1,000	3.45	34.88	27.76
1,499	3.38	34.90				

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t

Station 7199; 22 June; 49°02′ N., 44°58′ W.; depth 1,728 m.; dynamic height 970.865.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.01	33.95	0	5.01	33.95	26.86
25	2.54	34.21	25	2.54	34.21	27.32
50	2.36	34.38	50	2.36	34.38	27.46
75	2.68	34.54	75	2.68	34.54	27.57
100	2.74	34.57	100	2.74	34.57	27.59
150	2.86	34.64	150	2.86	34.64	27.63
201	3.03	34.69	200	3.05	34.69	27.65
301	3.27	34.76	300	3.25	34.75	27.68
398	3.30	34.79	400	3.30	34.79	27.71
598	3.49	34.84	600	3.50	34.85	27.74
797	3.50	34.87	800	3.50	34.87	27.76
997	3.49	34.88	1,000	3.50	34.89	27.77
1,500	3.34	34.92				

Station 7200; 21 June; 48°37′ N., 45°26′ W.; depth 1,040 m.; dynamic height 970.876.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.54	34.26	0	6.54	34.26	26.92
25	6.23	34.29	25	6.23	34.29	26.98
50	3.77	34.46	50	3.77	34.46	27.40
76	3.13	34.54	75	3.15	34.54	27.52
101	2.79	34.605	100	2.80	34.60	27.60
151	2.79	34.63	150	2.80	34.63	27.62
201	3.04	34.72	200	3.00	34.71	27.68
302	3.28	34.77	300	3.30	34.77	27.70
392	3.43	34.80	400	3.45	34.80	27.70
590	3.58	34.85	600	3.60	34.85	27.73
790	3.57	34.88	800	3.60	34.88	27.75
988	3.41	34.90	(1,000)	3.40	34.90	27.79

Station 7201; 21 June; 48°19′ N., 45°54′ W.; depth 1,169 m.; dynamic height 970.971.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.58	34.24	0	6.58	34.24	26.90
25	4.49	34.23	25	4.49	34.23	27.14
50	4.71	34.53	50	4.71	34.53	27.35
76	3.92	34.53	75	3.95	34.53	27.43
101	3.07	34.59	100	3.10	34.59	27.57
151	3.06	34.68	150	3.05	34.68	27.64
201	3.20	34.72	200	3.20	34.72	27.67
302	3.28	34.79	300	3.30	34.79	27.71
398	3.31	34.80	400	3.30	34.80	27.72
597	3.33	34.82	600	3.35	34.82	27.73
795	3.50	34.86	800	3.50	34.86	27.75
1,000	3.50	34.88	1,000	3.50	34.88	27.76

Station 7202; 21 June; 47°59′ N., 46°21′ W.; depth 1,188 m.; dynamic height 970.885.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.23	34.20	0	6.23	34.20	26.83
25	5.16	34.31	25	5.16	34.31	27.13
50	4.09	34.48	50	4.09	34.48	27.59
76	3.59	34.53	75	3.60	34.53	27.47
101	3.25	34.60	100	3.25	34.59	27.55
151	3.10	34.69	150	3.10	34.69	27.65
201	3.22	34.73	200	3.20	34.73	27.67
302	3.29	34.79	300	3.30	34.79	27.71
396	3.29	34.79	400	3.30	34.79	27.71
591	3.27	34.79	600	3.30	34.79	27.71
793	3.46	34.83	800	3.50	34.83	27.72
995	3.51	34.85	(1,000)	3.50	34.85	27.74

Station 7203; 21 June; 47°53′ N., 46°09′ W.; depth 1,024 m.; dynamic height 970.899.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.98	33.77	0	5.98	33.77	26.61
25	5.29	33.81	25	5.29	33.81	26.72
50	3.09	34.34	50	3.09	34.34	27.37
75	2.63	34.46	75	2.63	34.46	27.51
100	2.87	34.55	100	2.87	34.55	27.57
150	2.96	34.62	150	2.96	34.62	27.61
201	2.99	34.66	200	3.00	34.65	27.63
301	3.28	34.72	300	3.30	34.72	27.66
399	3.40	34.76	400	3.40	34.76	27.68
598	3.70	34.87	600	3.70	34.87	27.74
797	3.57	34.86	800	3.60	34.86	27.74
996	3.42	34.89	(1,000)	3.45	34.90	27.78

Station 7204; 21 June; 47°45′ N., 45°50′ W.; depth 434 m.; dynamic height 970.911.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.93	33.78	0	5.93	33.78	26.62
24	3.41	33.82	25	5.35	33.82	26.73
48	3.57	34.27	50	3.50	34.28	27.28
72	3.11	34.36	75	3.15	34.36	27.38
96	3.64	34.49	100	3.70	34.51	27.45
144	4.56	34.72	150	4.45	34.71	27.53
193	3.27	34.62	200	3.30	34.63	27.58
289	3.67	34.75	300	3.70	34.76	27.65
387	3.77	34.81	(400)	3.80	34.82	27.69

Station 7205; 21 June; 47°40′ N., 45°35′ W.; depth 320 m. dynamic height 970.905.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.36	33.65	0	5.36	33.65	26.59
25	4.67	33.72	25	4.67	33.72	26.72
50	3.13	34.15	50	3.13	34.15	27.21
75	2.69	34.26	75	2.69	34.26	27.34
99	2.84	34.36	100	2.85	34.36	27.41
149	2.92	34.52	150	2.95	34.52	27.53
199	3.38	34.68	200	3.40	34.68	27.61
298	3.80	34.84	(300)	3.80	34.85	27.71

Station 7206; 22 June; 47°26.5′ N., 45°07′ W.; depth 238 m.; dynamic height 970.898.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.44	33.96	0	6.44	33.96	26.69
25	6.08	34.00	25	6.08	34.00	26.77
50	4.07	34.17	50	4.07	34.17	27.14
75	3.29	34.34	75	3.29	34.34	27.35
100	2.79	34.46	100	2.79	34.46	27.49
150	3.15	34.60	150	3.15	34.60	27.57
200	3.61	34.75	200	3.61	34.75	27.65

Station 7207; 22 June; 47°20′ N., 44°57′ W.; depth 208 m.; dynamic height 970.891.

Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.56	34.00	0	6.56	34.00	26.72
25	4.86	34.06	25	4.86	34.06	26.97
50	3.70	34.20	50	3.70	34.20	27.20
75	3.68	34.35	75	3.68	34.35	27.32
100	2.97	34.50	100	2.97	34.50	27.51
150	3.29	34.64	150	3.29	34.64	27.59
180	3.52	34.70	(200)	3.70	34.75	27.64

Station 7208; 22 June; 47°19′ N., 45°14′ W.; depth 231 m.; dynamic height 970.902.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.03	33.86	0	6.03	33.86	26.67
25	5.72	33.93	25	5.72	33.93	26.77
50	3.40	34.06	50	3.40	34.06	27.12
75	2.80	34.28	75	2.80	34.28	27.35
100	2.68	34.37	100	2.68	34.37	27.43
149	3.00	34.57	150	3.00	34.57	27.57
199	3.44	34.70	(200)	3.45	34.70	27.62

Station 7209; 22 June; 47°23′ N., 45°38′ W.; depth 276 m.; dynamic height 970.911.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.47	33.66	0	5.47	33.36	26.33
25	5.08	33.70	25	5.08	33.70	26.66
50	2.55	33.98	50	2.55	33.98	27.13
75	2.35	34.21	75	2.35	34.21	27.33
100	2.60	34.36	100	2.60	34.36	27.43
150	2.77	34.50	150	2.77	34.50	27.52
200	3.21	34.65	200	3.21	34.65	27.61
250	3.71	34.76	300	4.15	34.84	27.66

Station 7210; 22 June; 47°22′ N., 45°57′ W.; depth 324 m.; dynamic height 970.908.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.94	33.82	0	5.94	33.82	26.66
25	5.95	33.82	25	5.95	33.82	26.66
50	3.55	34.17	50	3.55	34.17	27.20
75	2.88	34.29	75	2.88	34.29	27.35
100	2.73	34.38	100	2.73	34.38	27.43
150	3.14	34.56	150	3.14	34.56	27.54
199	3.38	34.64	200	3.40	34.64	27.58
299	3.77	34.84	(300)	3.80	34.84	27.70

Station 7211; 22 June; 47°18.5′ N., 46°31′ W.; depth 668 m.; dynamic height 970.894.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.51	33.64	0	5.51	33.64	26.56
25	4.11	33.92	25	4.11	33.92	26.93
50	2.63	34.23	50	2.63	34.23	27.32
75	2.49	34.40	75	2.49	34.40	27.47
99	3.53	34.60	100	3.55	34.61	27.54
149	1.27	34.76	150	4.30	34.76	27.59
199	4.26	34.76	200	4.25	34.82	27.64
298	3.88	33.81	300	3.90	34.81	27.67
390	3.68	34.81	400	3.70	34.81	27.69
591	3.68	34.87	600	3.70	34.87	27.74

Station 7212; 22 June; 47°15′ N., 46°57′ W.; depth 1,143 m.; dynamic height 970.890.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	5.18	33.84	0	5.18	33.84	26.76
25	4.95	33.88	25	4.95	33.88	26.81
51	3.17	34.29	50	3.25	34.27	27.30
76	3.02	34.46	75	3.05	34.45	27.46
103	2.93	34.59	100	2.95	34.58	27.57
153	2.97	34.64	150	3.00	34.63	27.61
104	3.14	34.72	200	3.15	34.72	27.67
307	3.26	34.75	300	3.30	34.75	27.68
401	3.44	34.79	400	3.45	34.79	27.69
601	3.51	34.85	600	3.50	34.85	27.74
801	3.59	34.87	800	3.60	34.87	27.75
1,008	3.44	34.89	1,000	3.45	34.89	27.77

Station 7213; 22 June; 47°15′ N., 47°20′ W.; depth 302 m.; dynamic height 971.018.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.71	33.03	0	2.71	33.03	26.36
24	2.41	33.18	25	2.40	33.18	26.51
48	1.10	33.35	50	1.05	33.37	26.76
73	0.73	33.62	75	0.75	33.66	27.01
97	1.36	33.86	100	1.40	33.90	27.15
146	1.73	34.20	150	1.75	34.22	27.39
194	2.10	34.33	200	2.15	34.34	27.45
291	2.68	34.52	(300)	2.70	34.53	27.55

Station 7214; 22 June; 47°15′ N., 47°41′ W.; depth 220 m.; dynamic height 971.060.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.37	33.02	0	3.37	33.02	26.30
25	2.32	33.05	25	2.32	33.05	26.41
51	0.27	33.07	50	0.45	33.06	26.54
76	−1.34	33.27	75	−1.30	33.26	26.77
102	−0.60	33.46	100	−0.70	33.45	26.91
153	0.82	33.89	150	0.75	33.87	27.18
204	1.35	34.02	200	1.30	34.01	27.25

Station 7215; 22 June; 47°15′ N., 48°06′ W.; depth 172 m.; dynamic height 971.067.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.68	33.00	0	2.68	33.00	26.34
25	2.39	32.96	25	2.39	32.96	26.34
50	1.42	33.22	50	1.42	33.22	26.61
76	−1.06	33.22	75	−1.05	33.22	26.73
101	−0.72	33.42	100	−0.70	33.41	26.88
151	0.55	33.78	150	0.50	33.77	27.11

Station 7216; 22 June; 47°13.5′ N., 48°40′ W.; depth 123 m.; dynamic height 971.079.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.59	32.88	0	2.59	32.88	26.25
25	1.97	32.92	25	1.97	32.92	26.33
50	0.17	32.97	50	0.17	32.97	26.48
75	−1.40	33.12	75	−1.40	33.12	26.66
100	−1.07	33.28	100	−1.07	33.28	26.78

Station 7217; 23 June; 47°12.5′ N., 49°13′ W.; depth 91 m.; dynamic height 971.086.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.00	32.86	0	3.00	32.86	26.20
26	2.83	32.85	25	2.85	32.85	26.20
51	1.94	32.96	50	2.00	32.95	26.36
77	−0.74	33.22	75	−0.55	33.19	26.69

Station 7218; 23 June; 46°45′ N., 48°36′ W.; depth 106 m.; dynamic height 971.082.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sclaed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.12	32.80	0	3.12	32.80	26.15
25	3.07	32.81	25	3.07	32.81	26.16
51	−0.41	33.05	50	−0.30	33.04	26.56
76	−0.87	33.25	75	−0.85	33.24	26.74

Station 7219; 23 June; 46°47′ N., 47°59′ W.; depth 124 m.; dynamic height 971.075.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.64	32.91	0	2.64	32.91	26.27
25	2.43	32.96	25	2.43	32.96	26.33
51	−1.11	32.94	50	−1.10	32.95	26.52
76	−1.05	33.30	75	−1.05	33.29	26.78
102	−0.89	33.36	100	−0.90	33.35	26.84

Station 7220; 23 June; 46°48′ N., 47°39′ W.; depth 166 m.; dynamic height 971.084.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	2.49	32.92	0	2.49	32.92	26.29
25	2.30	32.92	25	2.30	32.92	26.31
51	1.18	33.03	50	1.25	33.03	26.47
76	−0.32	33.09	75	−0.25	33.09	26.59
104	−0.92	33.21	100	−0.90	33.20	26.72
152	0.44	33.77	150	0.35	33.75	27.10

Station 7221; 23 June; 46°47.5′ N., 47°18′ W.; depth 327 m.; dynamic height 971.029.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	3.12	33.07	0	3.12	33.07	26.36
24	2.90	33.09	25	2.85	33.09	26.39
49	−0.73	33.24	50	−0.75	33.25	26.74
73	−0.86	33.40	75	−0.85	33.42	26.89
97	−0.23	33.67	100	−0.15	33.70	27.09
146	1.64	34.14	150	1.65	34.15	27.34
195	1.87	34.23	200	1.90	34.24	27.39
292	2.51	34.46	(300)	2.55	34.47	27.53

Station 7222; 23 June; 46°47.5′ N., 47°14′ W.; depth 640 m.; dynamic height 970.972.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	3.17	33.12	0	3.17	33.12	26.36
25	2.78	33.26	25	2.78	33.26	26.54
50	1.00	33.56	50	1.00	33.56	26.91
75	0.85	33.75	75	0.85	33.75	27.07
100	0.85	33.91	100	0.85	33.91	27.20
150	1.96	34.26	150	1.96	34.26	27.41
199	2.72	34.46	200	2.75	34.46	27.50
299	3.15	34.66	300	3.15	34.66	27.62
385	3.32	34.77	400	3.35	34.78	27.69
581	3.54	34.82	(600)	3.55	34.82	27.71

Station 7223; 23 June; 46°47′ N., 46°50′ W.; depth 1,244 m.; dynamic height 970.915.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	5.71	33.88	0	5.71	33.88	26.73
25	5.10	33.90	25	5.10	33.90	26.82
50	3.03	34.30	50	3.03	34.30	27.34
75	2.16	34.36	75	2.16	34.36	27.47
100	2.39	34.43	100	2.39	34.43	27.50
150	2.72	34.54	150	2.72	34.54	27.56
200	3.22	34.66	200	3.22	34.66	27.61
300	3.21	34.73	300	3.21	34.73	27.67
403	3.23	34.75	400	3.25	34.75	27.68
605	3.64	34.84	600	3.65	34.84	27.74
807	3.62	34.85	800	3.65	34.85	27.72
1,011	3.52	34.86	1,000	3.55	34.86	27.74
1,196	3.45	34.87				

Station 7224; 23 June; 46°18′ N., 46°30′ N.; depth 626 m.; dynamic height 970.937.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	6.73	33.64	0	6.73	33.64	26.11
25	6.06	33.64	25	6.06	33.64	26.49
50	3.43	34.16	50	3.13	34.16	27.22
75	2.48	34.26	75	2.48	34.26	27.36
100	3.51	34.51	100	3.51	34.51	27.47
150	4.24	34.73	150	4.24	34.73	27.57
200	4.84	34.85	200	4.84	34.85	27.59
300	4.07	34.82	300	4.07	34.82	27.66
401	3.67	34.81	400	3.70	34.81	27.69
603	3.88	34.86	600	3.90	34.86	27.71

Station 7225; 23 June; 46°48′ N., 46°04′ W.; depth 320 m.; dynamic height 970.949.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	6.54	33.66	0	6.54	33.66	26.45
25	5.70	33.71	25	5.70	33.71	26.59
50	3.44	34.05	50	3.44	34.05	27.11
75	3.68	34.34	75	3.68	34.34	27.31
100	4.41	34.57	100	4.41	34.57	27.42
150	4.96	34.76	150	4.96	34.76	27.51
200	3.58	34.64	200	3.58	34.64	27.56
300	3.80	34.75	300	3.80	34.75	27.63

Station 7226; 23 June; 46°48′ N., 45°40′ W.; depth 256 m.; dynamic height 970.950.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	6.79	33.89	0	6.79	33.89	26.59
25	6.42	33.91	25	6.42	33.91	26.74
49	4.89	34.09	50	4.85	34.05	26.96
74	3.31	34.28	75	3.30	34.28	27.30
98	3.04	34.35	100	3.05	34.36	27.39
147	3.95	34.60	150	3.95	34.60	27.49
197	3.75	34.66	200	3.60	34.61	27.56

Station 7227; 23 June; 46°46.5′ N., 45°19′ W.; depth 220 m.; dynamic height 970.944.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	7.01	33.90	0	7.01	33.90	26.57
25	6.36	33.96	25	6.36	33.96	26.71
49	4.35	34.17	50	4.30	34.17	27.12
74	3.61	34.31	75	3.60	34.31	27.30
99	4.44	34.53	100	4.45	34.53	27.38
148	2.88	34.50	150	2.90	34.50	27.52
197	3.44	34.63	(200)	3.45	34.63	27.56

Station 7228; 24 June; 46°47′ N., 44°59′ W.; depth 470 m.; dynamic height 970.937.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	7.03	34.12	0	7.03	34.12	26.74
25	6.48	34.14	25	6.48	34.14	26.83
50	4.98	34.18	50	4.98	34.18	27.05
74	3.22	34.30	75	3.22	34.31	27.33
99	2.85	34.37	100	2.85	34.37	27.42
149	3.05	34.54	150	3.05	34.54	27.53

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Station 7229; 24 June; 46°48.5′ N., 44°50′ W.; depth 143 m.; dynamic height 970.929.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.99	34.12	0	6.99	34.12	26.75
25	6.48	34.14	25	6.48	34.14	26.83
50	3.54	34.26	50	3.54	34.26	27.26
75	2.81	34.32	75	2.81	34.32	27.38
100	2.76	34.36	100	2.76	34.36	27.42
125	2.76	34.40				

Station 7230; 1 August; 50°00′ N., 48°59′ W.; depth 1,911 m.; dynamic height 970.867.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.66	32.49	0	9.66	32.49	25.06
24	4.40	34.39	25	4.30	34.40	27.30
48	3.49	34.56	50	3.40	34.57	27.53
73	3.21	34.65	75	3.20	34.65	27.61
97	3.24	34.73	100	3.25	34.73	27.66
146	3.22	34.76	150	3.25	34.76	27.69
194	3.29	34.79	200	3.30	34.79	27.71
291	3.32	34.82	300	3.35	34.82	27.73
376	3.33		400	3.35	34.83	27.73
565	3.34	34.84	600	3.35	34.84	27.74
755	3.28	34.85	800	3.30	34.85	27.76
950	3.31	34.86	1,000	3.30	34.86	27.77
1,447	3.38	34.90	1,500	3.40	34.90	27.79

Station 7231; 1 August; 49°48′ N., 49°30′ W.; depth 1,388 m.; dynamic height 970.880.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.99	31.98	0	8.99	31.98	24.78
25	2.98	34.36	25	2.98	34.36	27.40
51	2.76	34.48	50	2.75	34.48	27.51
75	2.69	34.57	75	2.70	34.57	27.59
101	2.80	34.62	100	2.75	34.62	27.63
151	3.13	34.70	150	3.15	34.70	27.65
202	3.29	34.76	200	3.30	34.76	27.69
303	3.32	34.80	300	3.35	34.80	27.71
386	3.31	34.81	400	3.30	34.81	27.73
580	3.35	34.84	600	3.35	34.84	27.74
774	3.32		800	3.35	34.84	27.74
976	3.31	34.84	1,000	3.30	34.84	27.75
1,388	3.64	34.87				

Station 7232; 1 August; 49°39′ N., 49°57′ W.; depth 631 m.; dynamic height 970.952.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.46	31.77	0	9.46	31.77	24.54
25	−0.29	33.26	25	−0.29	33.26	26.73
50	−0.26	33.65	50	−0.26	33.65	27.05
75	0.50	33.94	75	0.50	33.94	27.24
101	1.32	34.16	100	1.30	34.15	27.36
151	2.26	34.44	150	2.25	34.43	27.51
201	2.63	34.57	200	2.60	34.57	27.60
302	3.20	34.72	300	3.20	34.72	27.67
403	3.31	34.78	400	3.30	34.78	27.70
607	3.37	34.82	600	3.40	34.82	27.73

Station 7233; 1 August; 49°31.5′ N., 50°36′ W.; depth 342 m.; dynamic height 971.002.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.34	32.34	0	10.34	32.34	24.84
24	0.91	32.74	25	0.60	32.80	26.33
47	−0.88	33.21	50	−0.90	33.25	26.76
71	−0.82	33.50	75	−0.70	33.54	26.98
94	−0.08	33.72	100	0.05	33.76	27.13
141	0.94	34.00	150	1.15	34.05	27.29
188	1.94	34.30	200	2.10	34.55	27.46
282	2.92	34.64	300	3.05	34.69	27.65
323	3.23	34.77				

Station 7234 1 August; 49°24.5′ N., 51°05′ W.; depth 351 m.; dynamic height 971.077.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.24	32.02	0	11.24	32.02	24.44
24	7.11	32.23	25	6.65	32.26	25.33
49	−0.33	32.98	50	−0.40	32.99	26.53
73	−1.21	33.19	75	−1.20	33.20	26.72
98	−0.46	33.58	100	−0.45	33.60	27.02
147	0.66	33.96	150	0.70	33.98	27.26
195	1.75	34.23	200	1.85	34.25	27.40
293	2.91	34.65	300	2.95	34.66	27.64
336	3.07	34.70				

Station 7235; 1 August; 49°14′N., 51°33′ W.; depth 312 m.; dynamic height 971.075.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.39	31.22	0	11.39	31.22	23.79
24	0.65	32.41	25	0.60	32.43	26.03
49	−0.14	32.92	50	−0.20	32.93	26.47
73	−1.50	33.17	75	−1.50	33.18	26.71
99	−1.12	33.31	100	−1.10	33.31	26.80
147	−0.18	33.70	150	−0.10	33.72	27.10
196	0.62	33.95	200	0.70	33.97	27.26
295	2.81	34.53	(300)	2.95	34.56	27.56

Station 7236; 1 August; 49°07.5′ N., 51°52′ W.; depth 295 m.; dynamic height 971.110.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.24	31.18	0	11.24	31.18	23.78
25	1.15	32.63	25	1.15	32.63	26.16
50	−1.21	32.89	50	−1.21	32.89	26.47
75	−1.62	33.04	75	−1.62	33.04	26.60
100	−1.66	33.05	100	−1.66	33.05	26.61
149	−1.31	33.31	150	−1.30	33.31	26.81
199	−0.21	33.68	200	−0.20	33.69	27.08
280	2.25	34.33				

Station 7237; 2 August; 49°02.5′ N., 52°08′ W.; depth 302 m.; dynamic height 971.112.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.87	32.26	0	10.87	31.26	23.91
24	0.38	32.44	25	0.15	32.45	26.06
49	−1.16	32.84	50	−1.20	32.85	26.44
74	−1.52	33.02	75	−1.55	33.02	26.59
99	−1.61	33.10	100	−1.60	33.10	26.65
147	−1.16	33.28	150	−1.15	33.30	26.80
197	−0.25	33.62	200	−0.15	33.65	27.05
276	2.23	34.31	(300)	2.95	34.52	27.53

Station 7238; 2 August; 48°56.5′ N., 52°22′ W.; depth 302 m.; dynamic height 971.119.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.86	30.84	0	10.86	30.84	23.59
25	1.21	32.44	25	1.21	32.44	26.01
50	−1.07	32.95	50	−1.07	32.95	26.52
75	−1.60	33.05	75	−1.60	33.05	26.61
100	−1.64	33.06	100	−1.64	33.06	26.62
149	−1.39	33.28	150	−1.35	33.28	26.79
199	−0.67	33.55	200	−0.65	33.56	27.00
280	2.44	34.39	(300)	3.00	34.55	27.55

Station 7239; 2 August; 48°56.5′ N., 52°22′ W.; depth 227 m.; dynamic height 971.168.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.25	30.95	0	10.25	30.95	23.78
24	1.05	32.08	25	0.95	32.10	25.74
49	−0.80	32.55	50	−0.85	32.57	26.20
73	−1.18	32.79	75	−1.20	32.80	26.40
97	−1.36	32.96	100	−1.35	32.98	26.55
145	−1.60	33.11	150	−1.60	33.13	26.67
194	−0.85	33.44	(200)	−0.70	33.49	26.94

Station 7240; 2 August; 48°47.5′ N., 52°45′ W.; depth 185 m.; dynamic height 971.171.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.10	30.92	0	11.10	30.92	23.62
25	−0.16	32.19	25	−0.16	32.19	25.87
51	−1.04	32.66	50	−1.05	32.65	26.28
76	−1.26	32.82	75	−1.25	32.82	26.42
102	−1.42	32.96	100	−1.40	32.95	26.52
152	−1.55	33.14	150	−1.55	33.13	26.67

Station 7241; 2 August; 48°44′ N., 52°56′ W.; depth 110 m.; dynamic height 971.203.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.72	30.89	0	12.72	30.89	23.29
28	1.01	32.00	25	2.25	31.88	25.48
55	−0.52	32.41	50	−0.35	32.36	26.01
83	−0.94	32.58	75	−0.85	32.53	26.17
106	−1.20	32.78	100	−1.15	32.73	26.33

Station 7242; 2 August; 48°38′ N., 52°43′ W.; depth 251 m.; dynamic height 971.183.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.87	30.80	0	11.87	30.80	23.37
25	1.39	31.96	25	1.39	31.96	25.61
51	−0.94	32.52	50	−0.90	32.50	26.15
76	−1.30	32.89	75	−1.30	32.89	26.47
101	−1.52	32.98	100	−1.50	32.98	26.55
152	−1.61	33.04	150	−1.60	33.04	26.60

Station 7243; 2 August; 48°36′ N., 52°39′ W.; depth 265 m.; dynamic height 971.166.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.90	30.90	0	11.90	30.90	23.15
25	0.87	32.06	25	0.87	32.06	25.72
49	−1.02	32.58	50	−1.05	32.60	26.24
74	−1.32	32.92	75	−1.35	32.93	26.51
99	−1.54	33.01	100	−1.55	33.01	26.58
148	−1.61	33.10	150	−1.60	33.10	26.65
198	−1.32	33.24	200	−1.30	33.25	26.76
247	0.19	33.75				

Station 7244; 2 August; 48°25′ N., 52°14′ W.; depth 198 m.; dynamic height 971.150.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.12	31.06	0	12.12	31.06	23.53
25	1.78	32.50	25	1.78	32.50	26.00
50	−0.09	32.91	50	−0.09	32.91	26.44
75	−1.28	33.02	75	−1.28	33.02	26.58
99	−1.49	33.05	100	−1.50	33.05	26.60
149	−1.64	33.11	150	−1.65	33.11	26.66
184	−1.42	33.21	200	−1.25	33.27	26.78

Station 7245; 2 August; 48°15′ N., 51°52′ W.; depth 198 m.; dynamic height 971.135.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.60	31.11	0	12.60	31.11	23.49
24	−0.36	32.57	25	−0.45	32.59	26.21
49	−1.30	32.90	50	−1.35	32.91	26.49
73	−1.55	33.03	75	−1.55	33.04	26.60
98	−1.63	33.08	100	−1.60	33.08	26.63
147	−1.37	33.22	150	−1.35	33.23	26.75
186	−0.99	33.40				

Station 7246; 2 August; 48°08′ N., 51°33′ W.; depth 245 m.; dynamic height 971.144.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.55	31.14	0	12.55	31.14	23.52
25	2.27	32.66	25	2.27	32.66	26.10
50	−0.65	32.94	50	−0.65	32.94	26.50
75	−1.38	33.02	75	−1.38	33.02	26.58
100	−1.60	33.08	100	−1.60	33.08	26.63
150	−1.27	33.22	150	−1.27	33.22	26.74
200	−1.08	33.28	200	−1.08	33.28	26.78
225	−1.09	33.27				

Station 7247; 2 August; 47°59.5′ N., 51°17′ W.; depth 170 m.; dynamic height 971.143.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.86	31.28	0	12.86	31.28	23.56
25	3.28	32.74	25	3.28	32.74	26.08
51	−0.12	32.93	50	−0.05	32.92	26.45
76	−1.13	33.04	75	−1.10	33.03	26.58
101	−1.44	33.10	100	−1.45	33.09	26.58
152	−1.07	33.28	150	−1.10	33.27	26.77

Station 7248; 2 August; 47°52′ N., 51°00′ W.; depth 125 m.; dynamic height 971.129.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.80	31.92	0	12.80	31.92	24.08
25	3.02	32.81	25	3.02	32.81	26.17
50	0.59	32.95	50	0.59	32.95	26.44
76	−1.19	33.13	75	−1.20	33.12	26.66
101	−1.21	33.20	100	−1.20	33.20	26.72

Station 7249; 3 August; 47°44′ N., 50°40′ W.; depth 150 m.; dynamic height 971.134.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Sealed values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	12.51	32.07	0	12.51	32.07	24.25
25	4.86	32.79	25	4.86	32.79	25.97
51	1.12	32.88	50	1.30	32.88	26.35
76	−0.66	33.10	75	−0.60	33.09	26.60
102	−0.91	33.26	100	−0.90	33.25	26.76

Station 7250; 3 August; 47°35′ N., 50°22′ W.; depth 110 m.; dynamic height 971.133.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.98	32.46	0	11.98	32.46	24.64
25	5.27	32.77	25	5.27	32.77	25.90
51	1.38	32.88	50	1.40	32.88	26.34
76	−0.21	33.10	75	−0.20	33.09	26.59
102	−0.64	33.18	100	−0.60	33.18	26.68

Station 7251; 3 August; 47°25.5′ N., 50°02′ W.; depth 104 m.; dynamic height 971.118.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.77	32.71	0	10.77	32.71	25.05
25	4.75	32.86	25	4.75	32.86	26.03
51	0.57	33.04	50	0.60	33.03	26.51
76	−0.72	33.18	75	−0.70	33.17	26.68
			(100)	−1.05	33.27	26.77

Station 7252; 3 August; 47°42′ N., 49°54′ W.; depth 119 m.; dynamic height 971.124.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.41	32.59	0	11.41	32.59	24.85
25	4.12	32.83	25	4.42	32.83	26.05
50	0.72	33.00	50	0.72	33.00	26.48
75	−0.67	33.09	75	−0.67	33.09	26.61
100	−1.04	33.24	100	−1.04	33.24	26.75

Station 7253; 3 August; 47°56′ N., 49°48′ W.; depth 172 m.; dynamic height 971.131.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.59	32.22	0	11.59	32.22	24.53
25	2.98	32.72	25	2.98	32.72	26.09
50	−0.70	32.91	50	−0.70	32.91	26.47
74	−1.25	33.08	75	−1.25	33.08	26.62
99	−1.37	33.12	100	−1.35	33.12	26.66
124	−0.88	33.29	(150)	−0.20	33.56	26.98

Station 7254; 3 August; 48°10′ N., 49°43′ W.; depth 218 m.; dynamic height 971.136.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.36	31.68	0	11.36	31.68	24.16
25	2.44	32.38	25	2.44	32.38	25.87
51	−0.09	32.95	50	−0.05	32.94	26.47
76	−1.23	33.11	75	−1.20	33.10	26.64
101	−1.44	33.24	100	−1.45	33.24	26.76
152	−0.57	33.56	150	−0.60	33.55	26.98
203	0.62	33.88	200	0.55	33.86	27.18

Station 7255; 3 August; 48°33.5′ N., 49°31′ W.; depth 659 m.; dynamic height 971.065.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.69	31.32	0	11.69	31.32	23.82
25	2.55	32.78	25	2.55	32.78	26.18
49	−0.52	33.07	50	−0.55	33.08	26.60
74	−1.21	33.29	75	−1.20	33.30	26.80
98	−0.55	33.60	100	−0.45	33.62	27.04
148	1.08	33.98	150	1.15	34.00	27.25
197	2.15	34.28	200	2.20	34.30	27.42
295	2.91	34.61	300	2.95	34.61	27.60
390	3.07	34.68	400	3.10	34.68	27.64
591	3.25	34.74	600	3.25	34.74	27.67

Station 7256; 3 August; 48°39′ N., 49°28′ W.; depth 1,106 m.; dynamic height 971.028.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	11.91	31.38	0	11.91	31.38	23.82
25	2.37	32.52	25	2.37	32.52	25.98
50	−0.85	33.13	50	−0.85	33.13	26.65
75	−0.69	33.50	75	−0.69	33.50	26.95
101	−0.09	33.74	100	−0.10	33.74	27.11
151	1.55	34.12	150	1.55	34.11	27.31
201	2.18	34.40	200	2.15	34.39	27.49
302	2.92	34.64	300	2.90	34.64	27.63
378	3.43	34.76	400	3.45	34.78	27.68
569	3.37	34.82	600	3.35	34.81	27.72
765	3.37	34.81	800	3.40	34.82	27.73
965	3.48	34.85	1,000	3.50	34.85	27.74

Station 7257; 3 August; 49°07′ N., 49°17′ W.; depth 1,746 m.; dynamic height 970.894.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.84	31.69	0	9.84	31.69	24.42
25	1.44	33.92	25	1.44	33.92	27.17
74	2.12	34.35	50	1.65	34.20	27.38
99	2.45	34.46	75	2.15	34.35	27.46
149	2.89	34.62	100	2.45	34.47	27.53
198	3.30	34.70	150	2.90	34.62	27.62
297	3.39	34.78	200	3.30	34.70	27.64
409	3.41	34.83	300	3.40	34.83	27.73
615	3.37	------	400	3.40	34.83	27.73
822	3.32	34.84	600	3.35	34.83	27.73
1,029	3.37	------	800	3.30	34.84	27.75
1,549	3.38	34.885	1,000	3.40	34.85	27.75
			1,500	3.55	34.88	27.77

Station 7258; 3 August; 49°34′ N., 49°09′ W.; depth 1,792 m.; dynamic height 970.884.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	9.94	32.18	0	9.94	32.18	24.78
25	4.30	34.29	25	4.30	34.29	27.21
50	3.46	34.54	50	3.46	34.54	27.49
75	3.26	34.65	75	3.26	34.65	27.60
100	3.19	34.70	100	3.19	34.70	27.65
150	3.31	34.76	150	3.31	34.76	27.69
200	3.37	34.80	200	3.37	34.80	27.71
300	3.40	34.81	300	3.40	34.81	27.72
392	3.50	34.82	400	3.50	31.82	27.72
589	3.44	------	600	3.45	34.83	27.72
788	3.34	34.84	800	3.35	34.84	27.74
986	3.38	34.87	1,000	3.40	34.87	27.77
1,482	3.37	34.87	1,500	3.35	34.87	27.77

Station 7259; 4 August; 50°02.5′ N., 48°58′ W.; depth 1,920 m.; dynamic height 970.882.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.06	33.11	0	10.06	33.11	25.49
25	4.90	34.15	25	4.90	34.15	27.03
49	3.55	34.56	50	3.50	34.56	27.51
74	3.23	34.66	75	3.20	34.66	27.62
98	3.22	34.70	100	3.20	34.70	27.65
148	3.37	34.76	150	3.35	34.76	27.68
198	3.28	34.75	200	3.30	34.75	27.68
296	3.29	34.78	300	3.30	34.78	27.70
472	3.40	34.79	400	3.40	34.81	27.72
670	3.34	34.835	600	3.10	34.83	27.73
867	3.26	34.83	800	3.25	34.83	27.74
1,358	3.38	34.88	1,000	3.30	34.85	27.76
1,707	3.29	------	1,500	3.35	34.88	27.77
1,750	3.29	34.88				
1,758	3.29	34.88				

Station 7260; 5 August; 53° 14′ N., 55 47′ W.; depth 123 m.; dynamic height 1454.991.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	10.79	27.46	0	10.79	27.46	20.98
25	0.14	32.21	25	0.14	32.21	25.87
50	−1.24	32.60	50	−1.24	32.60	26.24
74	−1.42	32.69	75	−1.40	32.69	26.31
99	−1.47	32.75	100	−1.45	32.75	26.36

Station 7261; 5 August; 53° 52′ N., 55 33′ W.; depth 205 m.; dynamic height 1451.920.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.54	30.72	0	7.54	30.72	24.01
25	−0.69	32.38	25	−0.69	32.38	26.05
50	−1.34	32.82	50	−1.34	32.82	26.42
75	−1.29	33.00	75	−1.29	33.00	26.56
100	−1.22	33.10	100	−1.22	33.10	26.64
150	−1.16	33.20	150	−1.16	33.20	26.72
190	−1.09	33.29	(200)	−1.05	33.31	26.80

Station 7262; 5 August; 53° 56.5′ N., 55° 24′ W.; depth 181 m.; dynamic height 1454.905.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.29	30.78	0	7.29	30.78	24.08
24	−0.34	32.31	25	−0.50	32.35	26.02
48	−1.35	32.84	50	−1.35	32.85	26.44
73	−1.29	32.98	75	−1.30	32.99	26.55
97	−1.20	33.15	100	−1.20	33.17	26.70
115	−1.01	33.39	150	−1.00	33.41	26.89

Station 7263; 5 August; 54 06.5′ N., 55 04′ W.; depth 165 m.; dynamic height 1451.905.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.02	31.16	0	7.02	31.16	24.42
25	−0.69	32.46	25	−0.69	32.46	26.12
50	−1.24	32.80	50	−1.24	32.80	26.40
75	−1.30	32.98	75	−1.30	32.98	26.54
101	−1.34	33.15	100	−1.35	33.14	26.68
(151)	−0.88	33.50	150	−0.90	33.49	26.95

Station 7264; 5 August; 54 09′ N., 54 59′ W.; depth 174 m.; dynamic height 1454.894.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.74	31.16	0	6.74	31.16	24.45
25	−0.54	32.45	25	−0.54	32.45	26.10
50	−1.26	32.93	50	−1.26	32.93	26.50
75	−1.26	33.07	75	−1.26	33.07	26.62
100	−1.18	33.20	100	−1.18	33.20	26.72
150	−0.86	33.49	150	−0.86	33.49	26.94

Station 7265; 5 August; 54 26′ N., 51 26′ W.; depth 212 m.; dynamic height 1154.895.

Observed values			Scaled values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.43	31.18	0	7.43	31.18	24.38
25	−0.74	32.54	25	−0.74	32.54	26.18
50	−1.38	32.82	50	−1.38	32.82	26.42
75	−1.26	33.04	75	−1.26	33.04	26.59
100	−1.19	33.18	100	−1.19	33.18	26.70
149	−0.94	33.42	150	−0.95	33.43	26.90
189	−0.19	33.77	(200)	0.05	33.88	27.22

Station 7266; 6 August; 51 43.5′ N., 53 53′W.; depth 322 m.; dynamic height 1154.843.

Observed values			Sclaed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.82	31.45	0	3.82	31.45	25.00
25	−0.48	32.74	25	−0.48	32.74	26.33
50	−1.21	33.06	50	−1.21	33.06	26.61
75	−1.09	33.34	75	−1.09	33.34	26.83
99	−0.67	33.44	100	−0.65	33.44	26.90
149	0.12	33.83	150	0.15	33.84	27.20
199	0.93	34.05	200	0.95	31.05	27.30
298	2.68	34.46	300	2.75	34.47	27.51

Station 7267; 6 August; 54 51′ N., 53°32′ W.; depth 644 m.; dynamic height 1454.714.

Observed values			Sclaed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	1.13	32.78	0	4.13	32.78	26.03
25	3.92	33.35	25	3.92	33.35	26.50
50	2.73	34.25	50	2.73	34.25	27.33
75	2.18	34.33	75	2.18	34.33	27.44
100	2.85	34.44	100	2.85	34.44	27.47
149	3.45	34.64	150	3.45	34.64	27.57
199	3.81	34.73	200	3.80	34.73	27.61
299	3.87	34.78	300	3.90	34.78	27.64
397	3.81	34.81	400	3.80	34.81	27.68
597	3.52	34.80	600	3.50	34.80	27.70

Station 7268; 6 August; 54°55.5′ N., 53°19′ W.; depth 1.719 m.; dynamic height 1454.685.

Observed values			Sclaed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	6.13	33.14	0	6.13	33.14	26.09
25	5.26	33.36	25	5.26	33.36	26.36
51	3.93	33.44	50	3.95	34.40	27.34
76	3.53	34.62	75	3.55	34.61	27.54
102	3.57	34.72	100	3.55	34.71	27.62
152	3.73	34.76	150	3.75	34.76	27.64
203	3.65	34.80	200	3.65	34.80	27.68
305	3.51	34.82	300	3.55	34.82	27.71
391	3.46	34.82	400	3.45	34.82	27.72
588	3.46	34.82	600	3.45	34.82	27.72
788	3.38	34.82	800	3.35	34.82	27.73
988	3.27	34.82	1,000	3.25	34.82	27.74
1,193	3.43	34.89	1,500	3.45	34.89	27.77

Station 7269; 6 August; 55 01.5′ N., 53 10′ W.; depth 2,186 m.; dynamic height 1454.662.

Observed values			Sclaed values			
Depth, meters	Temperature, °C.	Salinity, ‰	Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.48	33.41	0	7.48	33.41	26.12
25	7.58	33.78	25	7.58	33.78	26.40
50	1.72	34.63	50	4.72	34.63	27.54
75	3.98	34.69	75	3.98	34.69	27.56
100	3.63	34.77	100	3.63	34.77	27.66
150	3.48	34.80	150	3.48	34.80	27.70
199	3.44	34.80	200	3.45	34.80	27.70
299	3.40	34.81	300	3.40	34.81	27.72
401	3.41	34.83	400	3.40	34.83	27.73
603	3.43	34.84	600	3.45	34.84	27.73
806	3.29		800	3.30	34.84	27.75
1,009	3.28	34.84	1,000	3.30	34.84	27.75
1,517	3.38	34.88	1,500	3.40	34.88	27.77
2,026	3.15	34.90	2,000	3.15	34.90	27.81
2,078	3.10	34.91				
2,123	3.03	34.92				

Station 7270; 6 August; 55°14′ N., 52°45′ W.; depth 3,072 m.; dynamic height 1454.623.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	8.82	34.15	0	8.82	34.15	26.50
25	4.45	34.46	25	4.45	34.46	27.33
49	3.92	34.66	50	3.90	34.66	27.55
74	3.64	34.71	75	3.65	34.71	27.61
98	3.45	34.71	100	3.45	34.71	27.63
147	3.33	34.77	150	3.30	34.77	27.70
196	3.19	34.76	200	3.20	34.76	27.70
291	3.35	34.82	300	3.35	34.82	27.73
393	3.35	34.81	400	3.35	34.84	27.74
591	3.31		600	3.30	34.84	27.75
791	3.31		800	3.30	34.84	27.75
992	3.23		1,000	3.25	34.84	27.75
1,494	3.39		1,500	3.40	34.90	27.79
2,002	3.23	34.90	2,000	3.25	34.90	27.80
2,529	2.78	34.91	2,500	2.80	34.91	27.85
3,025	2.04	34.88	3,000	2.10	34.88	27.88

Station 7271; 6 August; 55°34′ N., 52°13′ W.; depth 3,310 m.; dynamic height 1454.644.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	9.31	34.39	0	9.31	34.39	26.61
25	5.79	34.50	25	5.79	34.50	27.20
50	4.01	34.67	50	4.01	34.67	27.54
75	3.73	34.71	75	3.73	34.71	27.60
100	3.47	34.71	100	3.47	34.71	27.63
150	3.25	34.75	150	3.25	34.75	27.68
201	3.30	34.75	200	3.30	34.75	27.68
301	3.25	34.79	300	3.25	34.78	27.70
393	3.27	34.81	400	3.25	34.81	27.73
590	3.22		600	3.20	34.81	27.74
787	3.20	34.82	800	3.20	34.82	27.745
984	3.22		1,000	3.25	34.83	27.745
1,489	3.42	34.84	1,500	3.40	34.84	27.74
1,981	3.38	34.88	2,000	3.40	34.88	27.77
2,136	3.10	34.90	2,500	3.05	34.90	27.82
2,938	2.52	34.87	3,000	2.40	34.87	27.86
3,216	1.62	34.86				

Station 7272; 7 August; 55°59′ N., 51°28′ W.; depth 3,530 m.; dynamic height 1454.665.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	9.87	34.54	0	9.87	34.54	26.64
25	9.62	34.54	25	9.62	34.54	26.68
50	4.31	34.70	50	4.31	34.70	27.54
76	3.90	34.71	75	3.95	34.71	27.58
101	3.40	34.72	100	3.40	34.72	27.65
151	3.21	34.74	150	3.20	34.74	27.65
202	3.17		200	3.15	34.76	27.70
303	3.21	34.79	300	3.20	34.79	27.72
400	3.29	34.80	400	3.30	34.80	27.72
600	3.36		600	3.35	34.82	27.73
801	3.35	34.83	800	3.35	34.83	27.73
1,001	3.36	34.83	1,000	3.35	34.83	27.73
1,502	3.39	34.85	1,500	3.40	34.85	27.75
2,003	3.34	34.90	2,000	3.35	34.90	27.79
2,498	3.04	34.91	2,500	3.05	34.91	27.83
2,994	2.66	34.91	3,000	2.65	34.91	27.87
3,390	1.98	34.885	(3500)	1.60	34.87	27.92

Station 7273; 7 August; 56°32′ N., 50°21′ W.; depth 3,658 m.; dynamic height 1454.678.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	9.66	34.53	0	9.66	34.53	26.66
25	9.21	34.53	25	9.21	34.53	26.73
50	4.30	34.64	50	4.30	34.64	27.49
75	3.86	34.69	75	3.86	34.69	27.57
99	3.51	34.73	100	3.50	34.73	27.64
149	3.26		150	3.25	34.74	27.67
199	3.24	34.75	200	3.25	34.75	27.68
298	3.22		300	3.25	34.76	27.69
389	3.29	34.78	400	3.30	34.78	27.70
583	3.39	34.82	600	3.40	34.82	27.73
778	3.40	34.82	800	3.40	34.82	27.73
972	3.28	34.81	1,000	3.30	34.81	27.73
1,464	3.42	34.82	1,500	3.40	34.82	27.73
1,962	3.39	34.885	2,000	3.40	34.89	27.78
2,491	3.12	34.90	2,500	3.10	34.90	27.82
2,982	2.77	34.89	3,000	2.75	34.89	27.81
3,476	1.86	34.86	3,500	1.75	34.86	27.90
3,573	1.61	34.86				

Station 7274; 7–8 August; 57°05′ N., 49°10′ W.; depth 3,678 m.; dynamic height 1454.658.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	9.16	34.54	0	9.16	34.54	26.75
25	5.40	34.62	25	5.40	34.62	27.35
50	4.05	34.67	50	4.05	34.67	27.54
75	3.59		75	3.59	34.67	27.59
100	3.41	34.72	100	3.41	34.72	27.64
150	3.20	34.74	150	3.20	34.74	27.68
199	3.22	34.745	200	3.20	34.75	27.69
299	3.24	34.79	300	3.25	34.79	27.71
400	3.28	34.79	400	3.30	34.79	27.71
601	3.35	34.81	600	3.35	34.81	27.72
802	3.34	34.81	800	3.35	34.81	27.72
1,005	3.34		1,000	3.35	34.83	27.73
1,508	3.40	34.84	1,500	3.40	34.84	27.74
1,990	3.38	34.84	2,000	3.40	34.84	27.74
2,507	3.15	34.895	2,500	3.15	34.89	27.80
3,006	2.76	34.91	3,000	2.75	34.91	27.86
3,403	2.05	34.88	3,500	1.75	34.87	27.91
3,551	1.59	34.865				

Station 7275; 8 August; 57°37.5′ N., 48°06′ W.; depth 3,383 m.; dynamic height 1454.658.

Observed values: Depth, meters	Observed values: Temperature, °C.	Observed values: Salinity, ‰	Scaled values: Depth, meters	Scaled values: Temperature, °C.	Scaled values: Salinity, ‰	σ_t
0	8.25	34.49	0	8.25	34.49	26.85
25	8.06	34.54	25	8.06	34.54	26.92
50	5.01	34.72	50	5.01	34.72	27.47
75	4.87	34.84	75	4.87	34.84	27.58
100	4.29	34.82	100	4.29	34.82	27.63
150	4.57	34.90	150	4.57	34.90	27.67
200	4.42	34.915	200	4.42	34.915	27.69
300	4.25	34.925	300	4.25	34.925	27.72
400	3.73	34.85	400	3.73	34.85	27.715
599	3.63	34.85	600	3.65	34.85	27.72
798	3.50		800	3.50	34.83	27.72
995	3.53	34.875	1,000	3.55	34.88	27.75
1,497	3.47	34.90	1,500	3.45	34.90	27.78
2,001	3.35	34.90	2,000	3.35	34.90	27.79
2,523	2.95	34.93	2,500	2.95	34.93	27.85
3,028	2.31	34.90	3,000	2.35	34.90	27.88

STATIONS OCCUPIED IN 1959—Continued

Station 7276; 8 August; 58°07′ N., 47°06′ W.; depth 3,182 m.; dynamic height 1454.664.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	8.48	34.50	0	8.48	34.50	26.82
24	8.27	34.59	25	8.15	34.59	26.95
49	5.49	34.64	50	5.35	34.64	27.37
73	4.15	34.66	75	4.15	34.65	27.51
97	4.26	34.78	100	4.25	34.79	27.61
146	3.93	34.81	150	3.95	34.81	27.66
195	4.10	34.87	200	4.10	34.87	27.70
292	3.99	34.87	300	3.95	34.87	27.71
394	3.71	34.86	400	3.70	34.86	27.73
592	3.51		600	3.50	34.84	27.73
790	3.41	34.83	800	3.40	34.83	27.73
989	3.35	34.84	1,000	3.35	34.84	27.74
1,488	3.41	34.85	1,500	3.40	34.85	27.75
1,987	3.25	34.90	2,000	3.25	34.90	27.80
2,392	2.89	34.92	2,500	2.75	34.92	27.87
2,883	1.95	34.875	3,000	1.60	34.85	27.90
2,982	1.69					
3,032	1.48	34.84				

Station 7277; 8 August; 58°35′ N., 46°07′ W.; depth 2,561 m.; dynamic height 1454.637.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.62	34.53	0	7.62	34.53	26.98
22	7.47	34.58	25	7.15	34.61	27.11
45	5.46	34.85	50	5.30	34.86	27.55
68	5.14	34.89	75	5.15	34.91	27.61
91	5.21	34.95	100	5.15	34.95	27.64
135	4.98	34.95	150	4.90	34.96	27.68
180	4.79	34.97	200	4.70	34.96	27.70
271	4.41	34.915	300	4.30	34.905	27.695
392	4.05	34.885	400	4.05	34.89	27.71
590	4.01		600	4.00	34.90	27.73
789	3.77	34.905	800	3.75	34.90	27.75
990	3.63	34.90	1,000	3.60	34.90	27.77
1,494	3.39	34.86	1,500	3.40	34.90	27.79
2,002	2.94	34.90	2,000	2.95	34.90	27.83
2,290	2.43	34.84	(2,500)	1.90	34.88	27.90
2,389	2.19	34.89				
2,438	2.18	34.90				

Station 7278; 9 August; 58°56.5′ N., 45°24′ W.; depth 2,451 m.; dynamic height 1454.633.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	7.85	34.78	0	7.85	34.78	27.15
26	7.84	34.77	25	7.85	34.77	27.14
51	6.95	34.90	50	7.00	34.90	27.56
77	6.03	34.98	75	6.05	34.97	27.55
102	5.78	35.03	100	5.80	35.03	27.62
151	5.21	34.99	150	5.25	34.99	27.66
201	4.90	34.98	200	4.95	34.98	27.68
306	4.49	34.945	300	4.50	34.98	27.705
372	4.28	34.915	400	4.25	34.91	27.71
560	4.01	34.915	600	3.95	34.90	27.73
751	3.55	34.86	800	3.55	34.86	27.74
944	3.50	34.885	1,000	3.50	34.89	27.77
1,135	3.36	34.91	1,500	3.30	34.91	27.81
1,935	2.97	34.91	2,000	2.85	34.91	27.85
1,976	2.87	34.92				
2,089	2.70					
2,148	2.62	34.915				

Station 7279; 9 August; 59°13.5′ N., 44°53′ W.; depth 2,058 m.; dynamic height 1454.689.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	3.35	32.96	0	3.35	32.96	26.25
25	3.72	33.10	25	3.72	33.10	26.31
51	6.83	34.79	50	6.80	34.75	27.27
77	6.56	34.95	75	6.60	34.94	27.44
103	6.14	34.98	100	6.20	34.97	27.53
153	5.76	34.99	150	5.75	34.99	27.59
205	5.46	34.99	200	5.50	34.99	27.62
308	4.93	34.96	300	5.00	34.96	27.67
402	4.62	34.95	400	4.65	34.95	27.70
604	4.11	34.91	600	4.15	34.91	27.72
806	3.84	34.91	800	3.85	34.91	27.75
1,010	3.60	34.895	1,000	3.60	34.90	27.77
1,538	3.27	34.92	1,500	3.30	34.92	27.82
1,875	2.90	34.91	(2,000)	2.70	34.88	27.83
1,977	2.74	34.89				

Station 7280; 9 August; 59°30.5′ N., 44°24′ W.; depth 951 m.; dynamic height 1454.759.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	2.58	32.41	0	2.58	32.41	25.88
25	3.11	33.82	25	3.11	33.82	26.95
50	3.29	34.30	50	3.29	34.30	27.32
75	3.65	34.49	75	3.65	34.49	27.43
101	4.04	34.62	100	4.05	34.62	27.50
150	4.68	34.80	150	4.70	34.80	27.57
200	4.94	34.89	200	4.95	34.89	27.61
301	4.90	34.90	300	4.90	34.90	27.63
363	4.81	34.95	400	4.80	34.95	27.68
552	4.78		600	4.75	34.94	27.67
746	4.61	34.93	800	4.55	34.93	27.69
943	4.53	34.93				

Station 7281; 9 August; 59°34.5′ N., 44°21′ W.; depth 187 m.; dynamic height 1454.806.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.97	32.06	0	0.97	32.06	25.71
23	0.55	32.40	25	0.55	32.53	26.61
47	3.24	33.92	50	3.30	34.00	27.08
70	3.48	34.29	75	3.65	34.36	27.33
95	4.10		100	4.10	34.60	27.48
141	4.22	34.605	150	4.25	34.61	27.47

Station 7282; 9 August; 59°37′ N., 44°17′ W.; depth 165 m.; dynamic height 1454.840.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.96	32.14	0	0.96	32.14	25.77
25	−0.99	32.88	25	−0.99	32.88	26.45
50	−1.00	33.08	50	−1.00	33.08	26.61
75	0.51	33.49	75	0.51	33.49	26.88
101	1.60	33.76	100	1.60	33.75	27.02
150	4.42	34.47	150	4.43	34.47	27.34

Station 7283; 9 August; 59°40′ N., 43°53′ W.; depth 165 m.; dynamic height 1454.861.

Observed values: Depth, meters	Temperature, °C.	Salinity, ‰	Scaled values: Depth, meters	Temperature, °C.	Salinity, ‰	σ_t
0	0.46	32.29	0	0.46	32.29	25.92
25	0.04	32.41	25	0.04	32.44	26.07
50	−0.71	32.98	50	−0.71	32.98	26.53
75	−0.90	33.16	75	−0.90	33.16	26.68
100	−0.21	33.43	100	−0.21	33.43	26.87
150	2.50	34.14	150	2.50	34.14	27.26

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